

2516

Family Cynoglossidae

Body elongate, more or less lanceolate in profile, color on left side. Eyes on left side, small, very close together, not separated by bony ridge. Mouth small, twisted toward blind side. Teeth little developed, in villiform bands. Gill openings narrow. Gill membranes adnate to shoulder girdle above, joined together and free from isthmus below. Vertebral 47 to 52. Scales ctenoid. Lateral sometimes absent, sometimes duplicated. Vertical fins more or less confluent.

Pectoral absent with age. 2517

Ventrals small, often absent from blind side.

A large family, differing from the Soleidae chiefly in having the eyes and color on the left side, all the vertical fins confluent, no pectoral developed and only the left ventral present. The species are numerous and tropical or subtropical shallow sandy seas.

2518

Analysis of Genera

a.¹ Lateral line present on one or both sides.

b.¹ Lips fringed.

c.¹ Two lateral lines on left side, one on right side. Paraplagusia.

c.² Three lateral lines on left side, none on right side. Rhinoplagusia.

b.² Lips not fringed.

d.¹ A single posterior lateral line on left side, none on blind side. Dollfusichthys.

d.² Two lateral lines on left side, one or none on right side. Cynoglossus.

d.³ Three lateral lines on left side. Trulla.

a.² Lateral line absent. Symphurus.

2519

Genus Paraplagusia Bleeker

Paraplagusia Bleeker, Nederl. Tijds.
Dierk., vol. 2, p. 274, 1865. (Type,
Paraplagusia bilineata Bleeker,
designated by Jordan, Genera of
Fishes, pt. 3, p. 336, 1919.)

Body lanceolate. Snout hooked,
overhangs mouth cleft. Eyes on left
side. Mouth unsymmetrical,
strongly curved. Lips of colored
side with row of fringed tentacles.
One tubular nostril on colored side,
with valve at free border; 2 nostrils
on blind side, close behind each
other, anterior pierced through
fleshy tentacle and posterior oval
with short tube. Gill membranes
united, more or less free from
isthmus. Scales ctenoid on both
sides. Lateral lines 2 or 3 on colored
side, connected by means of
sensory canal on head, one median,
one other along dorsal base and

third, when present, along anal base.²⁵²⁰
One lateral line on blind side
without pores. Vertical fins all
confluent. No pectorals. Only left
ventral developed.

Indian and Western Pacific
Oceans.

2524

Paraplagusia acuminata (Castelnau)

Plagusia acuminata Castelnau, (Res.
Fishes Austral.) Vict. Off. Rec.

Philadelphia Exhib., p. 44, 1875
(type locality: Western Australia).

Paraplagusia acuminata McCulloch,
Austral. Mus. Mem., No. 5, pt. 2, p.
287, Sep. 10, 1929 (reference).

Horman, Biol. Res. Endeavour, vol. 5, pt. 5,
p. 298, June 15, 1926 (reference).

— Macleay, Proc. Linn. Soc. New South
Wales, vol. 6, p. 138, 1882.

2522

The following ^a doubtful names: ~~are~~:

Paraplagusia brevirostris (Saville-Kent)

Plagusia brevirostris Saville-Kent, Great Barrier Reef, p. 370, 1893 (type locality: Queensland; no figure or description).

Paraplagusia brevirostris McCulloch, Austral. Mus. Mem., no. 5, pt. 2, p. 287, Sep. 10, 1929 (reference).

2524

Jerdon, Madras Journ. Lit. Sci., vol.
—, p. 148, 1851. — Kaup, Archiv
Naturges., vol. 24, pt. 1, p. 109, 1858
(reference). — Günther, Cat. Fishes
Brit. Mus., vol. 4, p. 492, 1862 (part).
— Day, Fishes of Malabar, p. 174, 1865.
— Klunzinger, Verh. zool. bot. Ges.
Wien, vol. 21, p. 573, 1871 (Red Sea). —
Day, Fishes of India, pt. 3, p. 431,
1877; Fauna British India, Fishes,
vol. 2, p. 452, 1889. — Alcock, Journ.
Asiatic Soc. Bengal, vol. 58, pt. 1,
no. 3, p. 290, 1889 (near Sacramento
shoal off Godavari Delta).

Paraplagusia bilineatus Bleeker, Atlas
Ichth. Ind. Néerl., vol. 6, p. 27, pl. (13)
244, fig. 5, 1866-72 (Java, Madura,
Sumatra, Pinang, Singapore, Borneo);
Rech. Faune Madag., 1877, p. 77 (reference).
— Jordan and Evermann, Proc. U. S. Nat.
Mus., vol. ~~53, p. 183, fig. 50, fig. 51 (head)~~
25, p. 366, 1902 (Formosa; Keelun). — Weber
and Beaufort, Fishes Indo Austral Arch.,
vol. 5, p. 183, fig. 50, fig. 51 (head), 1929 (Pulu
Weh, Nias, Borneo, Madura, Celebes).

2523

Paraplagusia bilineata (Bloch)

Pleuronectes bilineatus Bloch, Naturg.
Ausland. Fische, vol. 3, p. 29, pl. 1878,
1787 (type locality: Chinese waters). —
Bonnaterre, Tabl. Ichth., p. 79, pl. 91,
fig. 377, 1788 (East Indies). — Gmelin,
Syst. Nat. Linn., pt. 1, p. 1235, 1789
(China). — Bloch, Naturges. Ausländ.
Fische, vol. 3, p. 119, 1795 (Tranquebar).
— Walbaum, Artedii Pisc., vol. 3, p.
119, 1792 (on Bloch). — Forster, Fauna
Indica, p. 14, 1795. — Schneider,
Syst. Ichth. Bloch, p. 158, 1801 (East
Indies). — Shaw, General Zool., vol.
4, p. 317, 1804 (). —
Bennett, Life of Raffles, p. 692, 1830
(Sumatra).

Plagusia bilineata Cuvier, Règne Animal,
ed. , vol. 2, p. 224, 18 ().
— Swainson, Nat. Hist. Animals, vol.
2, p. 303, 1839 (reference). — Cantor,
Journ. Asiatic Soc. Bengal, vol. 18,
pt. 2, p. 1209, 1849 (1850) (part). —

2525

Plagusia marmorata Bleeker, Naturk.
Tijds. Ned. Indië, vol. 1, p. 411, 1850
(type locality: Batavia); Verhand.
Batavia. Genoots., no. 9, vol. 24, p.
20, 1852 (Amboina). — Kaup, Archiv
Naturges., vol. 24, pt. 1, p. 109, 1858
(reference). — Günther, Cat. Fishes
Brit. Mus., vol. 4, p. 491, 1862
(Amboina). — Kner, Reise Novara,
Fische, p. 293, 1865 (Java). — Day,
Fishes of India, pt. 3, p. 431, pl.
95, fig. 1, 1877 (Madras; China). —
Meyer, Anal. Soc. Españ. Hist. Nat.
Madrid, vol. 14, p. 40, 1885 (Menado,
Celebes). — Day, Fauna British
India, Fishes, vol. 2, p. 451, fig. 162,
1889.

Paraplagusia marmorata Bleeker,
Nederl. Tijds. Dierk., vol. 2, p. 274,
1865 (Amboina); Atlas Ichth. Ind.
Néerl., vol. 6, p. 28, pl. (15) 246, fig. 5,
1866-72 (Java, Bali, Sumatra, Batu,
Singapore, Borneo, Celebes, Batjan,
Amboina); Rech. Faune Madagascar,

1877, p. 77 (reference); Verh. Kon.
Akad. Wet. Amsterdam (Japan),
vol. 18, p. 22, 1879 (reference). —
Jordan and Snyder, Annot. Zool.
Jap., vol. 3, p. 123, 1901 (reference).
— Fowler, Proc. Acad. Nat. Sci.
Philadelphia, ser. 2, vol. 57, p.
517, 1905 (Baram, Borneo). — Bean
and Weed, Proc. U. S. Nat. Mus., vol.
42, p. 610, 1912 (Batavia). — Chu,
Biol. Bull. St. John's Univ., Shanghai,
no. 1, p. 94, Jan. 1931 (reference).

Plagusia dipterigia Rüppell, Atlas
Reise nördl. Afrika, Fische, p. 123,
pl. 31, ^{fig. 3} 1828 (type locality: Bays of
northern Red Sea).

Paraplagusia dipterygia Reeves, Journ.
Pan Pac. Res. Inst., vol. 2, no. 3, p.
14, July-Sep. 1927 (name).

Depth $3\frac{1}{6}$ to $3\frac{2}{5}$; head $3\frac{3}{4}$ to $3\frac{4}{5}$, width $4\frac{1}{2}$ to $4\frac{3}{5}$. Snout end to lower orbit 2 to $2\frac{1}{8}$ in head; lower orbit 9 to $9\frac{1}{2}$, $4\frac{1}{2}$ to $4\frac{4}{5}$ in snout; upper orbit entirely to $\frac{4}{5}$ in advance of lower orbit; maxillary reaches very slightly beyond hind edge of lower orbit; mouth cleft $4\frac{1}{4}$ to $4\frac{2}{5}$ in head, pointed end of upper jaw extended backward beyond ^{hind} maxillary end; each left lip with fringe of short tentacles, right ones entire; ^{nasal tubes short;} ^{sealy} interorbital equals lower orbit. No gill rakers; gill filaments $1\frac{1}{4}$ times lower orbit.

Le trinus nemacanthus Elera, Cat. Fauna
Filipinas, vol. 1, 1895, p. 482 (Cebu). (Error.)

? Lethrinus xanthopterus Valenciennes,
Hist. Nat. Poiss., vol. 6, 1830, p. 315. Ulea.

2528

Scales 70 or 71 in lateral line from above gill opening to caudal base and 6 or 7 more on latter (11 to 13 more forward on head to dorsal intersection); 15 above to upper lateral line, 28 or 29 below. Scales with 24 to 26 basal radiating striae; 21 to 30 slender rather long apical denticles, with 3 to 5 transverse series of basal elements; circuli fine, complete. Two lateral lines on left side, none on right.

D. 96 to 98, fin height 4 to $4\frac{1}{2}$ in head; A. 75 to 78, fin height $2\frac{3}{4}$ to 4; caudal $2\frac{3}{5}$ to $2\frac{7}{8}$, pointed behind; ventral $4\frac{1}{2}$ to $4\frac{4}{5}$.

Mass brown to fawn color on left side, finely mottled or ~~B~~ marbled with darker, whole pattern made up of waved anastomosing lines,

(1907), p. 86 (Bulan). $\frac{1}{m}$ Jordan and
Thompson, Proc. U. S. Nat. Mus., vol. 41,
 1912, p. 559 (Wakanoura, Tokyo,
 Bulan, Moreton Bay). $\frac{1}{m}$ Weber,
 Siboga Exped., Fische, vol. 57, 1913,
 p. 288 (Makassar). $\frac{1}{m}$ Fowler, Copeia,
 no. 57, June 18, 1918, p. 64 (Philippines).
 Proc. Acad. Nat. Sci. Philadelphia, 1927,
 p. 281 (Philippines). $\frac{1}{m}$ Herre and
Kuntalban, Philippine Journ. Sci.,
 vol. 33, no. 4, Aug. 1927, p. 401, pl. 1, fig.
 2 (Calapan, Bulan, Licuayan, Estancia,
 Bantayan, Siquijor, Subic Bay,
 Dipolog, Cagayan de Misamis). $\frac{1}{m}$
Fowler, Mem. Bishop Mus., vol. 10, 1928,
 p. 215 (note).

between which are very irregular
variable larger pale spots.
Many examples appear as if
greatly spotted with pale or
light tints and the dark
intervening lines indistinct
or obscure. Sometimes whole
coloration nearly uniform.
Orbits neutral gray. Right
side whitish, markings of
colored side obscured and
terminal on vertical fins.

P. 4933 (136)
6752 (92)

Case 129

39

Lethrinus nematacanthus Bleeker

Lethrinus nematacanthus Bleeker, Naturk.
Tijdschr. Nederl. Indië, vol. 6, 1854,
p. 403. Nagasaki; Verhandel. Batavia.
Genootsch. (Japan.), vol. 26, 1857, p. 90,
pl. 6 (Japan). Günther, Cat.
Fishes Brit. Mus., vol. 1, 1859, p. 456
(Louisiades). Bleeker, Nederl. Tijdschr.
Dierk., vol. 4, 1873, p. 227 (Ambonia and
Kiusiu). Alleyne and Macleay, Proc.
Linn. Soc. New South Wales, vol. 1, 1876,
p. 275 (Cape Grenville and Piton Islands).
Bleeker, Atlas Ichth. Ind. Néerland.,
vol. 8, 1876-77, p. 114, pl. (59) 337, fig. 3
(Ambouyna). Meyer, Linn. Soc. Españ.
Hist. Nat. Madrid, vol. 14, 1885, p. 18
(North Celebes; Cebu). Jordan and
Snyder, Ann. Zool. Japon., vol. 3, 1901,
p. 80 (Nagasaki). Evermann and
Seale, Bull. Bur. Fisher., vol. 26, 1906

2530

Paraplagusia blochii (Bleeker)

Plagusia blochii Bleeker, Natuurk. Tijds.
Ned. Indië, vol. 1, p. 411, 1851 (type
locality: Batavia; Cheribon; Tegal;
Tjilatjap; Samarang; Rembang;
Surabaya; Pasuruan); Verh.
Batavia. Genoot., no. 9, vol. 24, p.
21, 1855 (same localities as above).
— Martens, Preuss. Exped. Ost Asien,
vol. 1, p. 398, 1876.

Paraplagusia blochi Weber and Beaufort,
Fishes Indo Austral. Archip., vol. 5,
p. 184, 1929 (Himalay; Java; Madura).

Plagusia bilineata (not Bloch) Cantor,
Journ. Asiatic Soc. Bengal, vol. 18,
pt. 2, p. 1209, 1849 (1850) (Sea of
Malayan Peninsula and Islands). —
Günther, Cat. Fishes Brit. Mus.,
vol. 4, p. 492, 1862 (Cantor's specimen).
— Day, Fishes of India, pt. 3, p. 431,
1877; Fauna British India, Fishes,
vol. 2, p. 452, 1889.

2531

Paraplagusia bilineata Bleeker, Atlas
Ichth. Ind. Néerl., vol. 6, p. 27, 1866-
72 (part).

Symphurus vittatus Weber, Nova
Guinea, vol. 5, pt. 2, p. 250, 1908.

Paraplagusia dollfusi Chabanaud

Paraplagusia dollfusi Chabanaud, Bull.
Soc. Zool. France, vol. 56, p. 303, 1931
(type locality: Gulf of Suez).

2533

Paraplagusia guttata (Macleay)

Plagusia guttata Macleay, Proc. Linn. Soc. New South Wales, vol. 2, pt. 4, p. 362, pl. 10, fig. 3, June 1878 (type locality: Port Darwin, Northern Territory); vol. 6, pt. 1, p. 137, 1881 (Port Darwin; Endeavour River).

— Horman, Biol. Res. Endeavour, vol. 5, pt. 5, p. 299, June 15, 1926 (20 miles north-east of Bustard Bay; Southern Queensland; 20 fathoms).

Beaufort, Fishes Indo Austral. Archip., vol. 5, p. 185, 1929 (New Guinea material).

— 7

Rhinoplagusia australis Rendahl, Nyt. Mag. Nat. Kristiania, vol. 60, p. 190, 1922 (type locality: Roebuck Bay, Northwest Australia). — McCulloch, Austral. Mus. Mem., no. 5, pt. 2, p. 288, Sep. 10, 1928 (reference).

2533

Paraplagusia guttata (Macleay)

Plagusia guttata Macleay, Proc. Linn. Soc. New South Wales, vol. 2, pt. 4, p. 362, pl. 10, fig. 3, June 1878 (type locality: Port Darwin, Northern Territory); vol. 6, pt. 1, p. 137, 1881 (Port Darwin; Endeavour River).

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12
- Rhinoplagusia guttata McCulloch, Austral. Mus. Mem., No. 5, pt. 2, p. 288, Sep. 10, 1929 (reference).

12
- Paraplagusia guttata Weber and Beaufort, Fishes Indo Austral. Archip., vol. 5, p. 185, 1929 (New Guinea material).

7
- Rhinoplagusia australis Rendahl, Nyt. Mag. Nat. Kristiania, vol. 60, p. 190, 1922 (type locality: Roebuck Bay, Northwest Australia). — McCulloch, Austral. Mus. Mem., No. 5, pt. 2, p. 288, Sep. 10, 1928 (reference).

Note

Corr. 29

Lethrinus miniatus (Schneider)
(Forster)

Sparus miniatus, Schneider, Syst.
Ichth. Bloch, 1806, p. 281. Pacific Ocean

(Port Dar)

Rhinopla
Austral
p. 288,

Paraplag
Beaufort

Paraplagusia bilineata Bleeker²⁵³⁴
Atlas Ichth. Ind. Néerl., vol. 6, p.
27, 1866-72 (part).

Plagusia japonica (not Schlegel)
Klunzinger, Sitzs. Ber. Akad. Wiss.
Wien, math.-nat. Kl., vol. 80, pt. 1, p.
409, 1879 (1880) (Port Darwin)

Rhinoplagusia japonica McCulloch and
Whitley, Rec. Austral. Mus., vol. 14, no. 4,
p. 350, 1925.
fig. 3,

Plagusia notata De Vis, Proc. Linn.
Soc. New South Wales, vol. 8, p. 288, 1883
(type locality: Moreton Bay).

Symphurus vittatus Weber, Nova Guinea,
vol. 5, pt. 2, p. 250, 1908.

2535

Paraplagusia macrocephalus Bleeker

Paraplagusia macrocephalus Bleeker,
Atlas Ichth. Ind. Néerl., vol. 6, p. 28,
pl. (15) 246, fig. 3, 1866-72 (type
locality: Padang, Sumatra). — Weber
and Beaufort, Fishes Indo Austral.
Archip., vol. 5, p. 184, 1929 (compiled).

Paraplagusia dipterygia (not Rüppell)
Jordan and Starck, Proc. U. S. Nat.
Mus., vol. 31, p. 236, 1906 (compiled).

Paraplagusia unicolor (Macleay)²⁵³⁶

Plagusia unicolor Macleay, Proc.
Linn. Soc. New South Wales, vol. 6,
pt. 1, p. 138, July 1881 (type locality:
Port Jackson, New South Wales). —

Ogilby, Cat. Fishes New South Wales, p. 33, 1887.

Paraplagusia unicolor McCulloch,
~~Austral. Mus. Mem., No. 5, pt. 2,~~
~~p. 287, Sep. 10, 1929 (reference).~~

Austral. Zool., vol. 2, p. 47, pl. 13, 1921.

— Lord, Papers Proc. Roy. Soc. Tasmania,
p. 66, 1922. — McCulloch and Whitley,
Rec. Austral. Mus., vol. 14, p. 353, fig.
4, 1925. — Horman, Biol. Res.

Endeavour, vol. 5, pt. 5, p. 298, June
15, 1926 (off Hervey Bay; Fraser Island;
mouth of Wide Bay; southern Queensland;
southern New South Wales; 15 to 18 fathoms).

— McCulloch, Austral. Mus. Mem.,
No. 5, pt. 2, p. 287, Sep. 10, 1929 (reference).

Genus Rhinoplagusia Bleeker²⁵³⁷

Rhinoplagusia Bleeker, Atlas Ichth.
Ind. Néerl., vol. 6, p. 27, 1866-72. (Type,
Plagusia japonica Schlegel, monotypic.)

Usinostia Jordan and Snyder, Proc. U.
S. Nat. Mus., vol. 23, p. 380, 1900.
(Type, Plagusia japonica Schlegel,
monotypic.) (misprint.)

Usinosta Jordan and Snyder, Journ.
College Sci. Tokyo, vol. 3, p. 123, 1901.
(Type, Plagusia japonica Schlegel,
monotypic.) (misprint.)

Usinostita Jordan and Evermann, Proc.
U. S. Nat. Mus., vol. 25, p. 366, 1902.
(Type, Plagusia japonica Schlegel,
monotypic.)

2538

Otakei, Journ. Fish. Bur. Tokyo,
p. 8, 1896. — Ishikawa, Prelim.
Cat. Fish. Mus. Tokyo, and Matsuura,
p. 24, 1896 (reference).

Usinostia japonica Jordan and Snyder,
Proc. U. S. Nat. Mus., vol. 23, p. 380,
1900 (Tokyo).

Usinosta japonica Jordan and Snyder,
Annot. Zool. Japon., vol. 3, p. 123, 1901
(reference).

Usinosita japonica Jordan and Evermann,
Proc. U. S. Nat. Mus., vol. 25, p. 366,
1902 (Keerun). — Jordan and Starks,
Bull. U. S. Fish Comm., vol. 22, p. 628,
1904 (Suruga Bay); Proc. U. S.
Nat. Mus., vol. 31, p. 237, 1906
(Wakanoura, Kobe, Tokyo). — Schmidt,
Compt. Rend. Acad. Sci. U. R. S. S.,
p. 319, 1931 (Fusan, Korea).

Aseraggodes japonicus Jordan and Snyder,
Annot. Zool. Japon., vol. 3, p. 122, 1901
(reference).

Rhinoplagusia japonica (Houttun²⁵³⁹)

Pleuronectes japonicus Houttun,
Verh. Holl. Maatsch. Haarlem, vol. 20,
p. 317, 1782 (type locality: Japan).
— Gmelin, Syst. Nat. Linn., pt. 1, p.
1240, 1789 (Japan). — Walbaum,
Artedi Pisc., vol. 3, p. 121, 1792
(copied). — Forster, Fauna Indica,
p. 14, 1795. — Lacépède, Hist. Nat.
Poiss., vol. 4, pp. 599, 654, 1802
(Japan). — Schneider, Syst. Ichth.
Bloch, p. 162, 1801 (Japan).

Plagusia japonica Schlegel, Fauna
Japonica, Poiss., pts. 10-14, p. 187,
pl. 95, fig. 2, 1846 (Nagasaki Bay).
— Kaup, Archiv Naturges., vol. 24,
pt. 1, p. 109, 1858 (reference). —
Günther, Cat. Fishes Brit. Mus.,
vol. 4, p. 492, 1862 (copied). —
Bleeker, Verh. Kon. Akad. Wet.
Amsterdam (Japan), vol. 18, p. 22,
1879 (Kinsiu; Sibok). — Hamaye,
Class. Cat., 1881, p. 111 (Tokyo). —

Rhinoplagusia japonica Snyder, ²⁵⁴⁰Proc.
U. S. Nat. Mus., vol. 42, p. 441, 1912
(Tokyo, Misaki, Otaru, Kagoshima).
— Jordan, Tanaka, Snyder, Journ.
College Sci. Tokyo, vol. 33, p. 335,
1913 (reference). — Izuka and Matsuura,
Cat. Zool. Spec. Mus. Tokyo, Vertebr.,
p. 115, 1920 (Tokyo market). —
Reeves, Journ. Pan Pac. Res. Inst.,
vol. 2, no. 3, p. 14, July-Sep. 1927
(Amoy, Foochow, Mia W ha). —
Schmidt and Lindberg, Bull. Acad.
Sci. U. R. S. S., p. 1149, 1930 (Turuga).
— Chu, Biol. Bull. St. John's Univ.,
Shanghai, no. 1, p. 94, Jan. 1931 (reference).
— Schmidt, Trans. Pac. Comm. Acad.
Sci. U. S. S. R., vol. 2, p. 128, 1931
(Nagasaki).

2541

Genus Dollfusichthys Chabanaud

Dollfusichthys Chabanaud, Bull. Soc.
Zool. France, vol. 56, p. 304, 1931.

(Type Dollfusichthys sinus-arabici
Chabanaud, monotypic.)

Lips not fringed. Teeth only in
jaws of blind side. Two nostrils
on eyed side, anterior tubular before
lower eye, posterior simple pore
in front ^{part} of interorbital. Two
nostrils on blind side of head.
Single lateral line posterior on
eyed side, none on blind side.
Only ventral of eyed side present.

2542
Dollfusichthys sinus-arabici Chabanaud

Dollfusichthys sinus-arabici Chabanaud,
Bull. Soc. Zool. France, vol. 56, 1931, p.
304 (type locality: Gulf of Suez).

2543

Genus Cynoglossus Buchanan-Hamilton

Cynoglossus Buchanan-Hamilton, Fishes of
Ganges, pp. 32, 365, 1822. (Type,
Cynoglossus lingua Buchanan-Hamilton,
monotypic.)

Arelia Kaup, Archiv Naturges., vol. 24, pt.
1, p. 107. (Type, Arelia schneideri Kaup
= Pleuronectes arel Schneider, virtually
tautotypic.)

Icania Kaup, Archiv Naturges., vol. 24, pt.
1, p. 109. (Type, Pleuronectes cynoglossus
Cantor, monotypic.)

Body lanceolate. Snout hooked,
overhangs mouth cleft. Eyes on left
side. Lips not fringed. Front
nostril on colored side tubular;
hind nostril when present usually
simple opening in interorbital space;
on blind side front nostril
usually tubular, hind one opening
or slit but less conspicuous than

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on colored side. Gill membranes united, more or less free from interorbital. Scales ctenoid on colored side, ctenoid or cycloid on blind side. Lateral lines 2 or 3 on colored side; one median, one extending same distance along below dorsal base always present and third along above anal base present or absent. Blind side with 2 lateral lines, one or none at all, generally not piercing scales. Dorsal, anal and caudal confluent. No pectorals. Only left ventral developed, connected with anal.

2545

Cynoglossus macrorhynchos (Bleeker)

Plagusia macrorhynchos Bleeker,
Natuurk. Tijds. Nederl. Indië, vol. 1,
p. 413, 1850 (type locality: Tjilankahan,
Bantam, Java; on figure by Kuhl
and Van Hasselt); Verh. Batavia.
Genoot. (Pleuronect.), vol. 24, p. 22,
1852 (copied). — Kaup, Archiv naturges.,
vol. 24, pt. 1, p. 110, 1858 (reference).
Arelia macrorhynchos Bleeker, Act.
Soc. Sci. Ind. Néerl. (Enum. Pisc.),
vol. 6, p. 185, 1859 (reference).
Cynoglossus macrorhynchus Bleeker,
Atlas Ichth. Ind. Néerl., vol. 6, p.
35, pl. (14) 265, fig. 2, 1866-72 (on
Kuhl and Van Hasselt). — Weber and
Beaufort, Fishes Indo Austral.
Archip., vol. 5, p. 208, 1929 (note).

Cynoglossus dabryi Bleeker,
from the Yangtse River, merely
a name mentioned in Chu's list
of 1931, I have been unable to
locate.

Cynoglossus arel (Schneider)

2547

Pleuronectes arel Schneider, Syst. Ichth. Bloch, p. 159, 1801 (type locality: Tranquebar).

Cynoglossus arel Day, Fishes of India, pt. 3, p. 434, pl. 98, fig. 2, 1877 (type); Fauna British India, Fishes, vol. 2, p. 456, 1889. — Jordan and Seale, Proc. U. S. Nat. Mus., vol. 29, p. 529, 1905 (Hong Kong). — Chu, Biol. Bull. St. John's Univ., Shanghai, no. 1, p. 95, Jan. 1931 (reference). — Norman, Rec.

Indian Mus., vol. 30, pt. 2, p. 201, fig. 17, July 1928 (Orissa; Hughli River mouth).

Arelia arel Reeves, Journ. Pan Pac. Res. Inst., vol. 2, no. 3, p. 14, July-Sep. 1927 (Hong Kong).

Arelia schneideri Kaup, Archiv Naturges., vol. 24, pt. 1, p. 107, 1858 (on Schneider).

2548

Cynoglossus bilineatus (Lacépède)

Archius bilineatus Lacépède, Hist. nat. Poiss., vol. 4, pp. 659, 663, 1802 (type locality: China).

Plagusia bilineata Rüppell, Atlas Reise nördl. Afrika, Fische, p. 123, 1828 (Massana).

(-Ogilby, Proc. Roy. Soc. Queensland, vol. 23, p. 39, 1910/1911) (diagnosis in key).

Cynoglossus bilineatus Weber, Siboga Exped., vol. 57, p. 443, 1913 (Macassar).

— Horman, Biol. Res. Endeavour, vol. 5, pt. 5, p. 301, 1926 (Bowen; Gloucester Head; 16 to 3.5 fathoms); Rec. Indian Mus., vol. 30, pt. 2, p. 198, fig. 13, July 1928 (Sind, Madras, Ganjam, Orissa, Burma, Karachi, Sind, Seychelles). — McCulloch, Austral. Mus. Mem., no. 5, pt. 2, p. 289, Sep. 10, 1929 (reference). — Weber and Beaufort, Fishes Indo Austral. Archip., vol. 5, p. 194, 1929 (Malacca Strait, Sumatra, Java, Madura, Celebes, Flores).

2549

Plagusia quadrilineata Kuhl and Van Hasselt, in Bleeker, Natuurk. Tijds.
Ned. Indië, vol. 1, p. 412, 1851 (type
locality: Batavia; Sumatra; Banka);
Verh. Batavia. Genoot., no. 9, vol. 24,
p. 21, 1852 (Java, Sumatra, Banka).

Arelia quadrilineata Kaup, Archiv
Naturges., vol. 24, pt. 1, p. 107, 1858
(Java; Sumatra).

Cynoglossus quadrilineatus Günther,
Cat. Fishes Brit. Mus., vol. 4, p. 497,
1862 (Amboyna). — Kner, Reise Novara,
Fisches, p. 295, 1865 (Java). — Bleeker,
Atlas Ichth. Ind. Néerl., vol. 6, p. 32,
pl. (14) 245, fig. 3, 1866-72 (Java, Sumatra,
Singapore, Banka, Bintang, Borneo,
Celebes, Amboina). — Klunzinger,
Verh. zool.-bot. Ges. Wien, vol. 21,
p. 573, 1871 (Red Sea). — Day, Fishes
of India, pt. 3, p. 435, 1877. —
Klunzinger, Sitzs. Ber. Akad. Wiss.
Wien, Math.-nat. Kl., vol. 80, p. 1, p.
409, 1879 (1880) (Cleveland Bay). —

2550

Macleay, Proc. Linn. Soc. New South
Wales, vol. 9, p. 53, 1884 (Cleveland
Bay record). — Meyer, An. Soc.
Españ. Hist. Nat. Madrid, vol. 14,
p. 40, 1885 (Manila Bay). — Day,
Fauna British India, Fishes, vol. 2,
p. 457, 1889. — Alcock, Journ. Asiatic
Soc. Bengal, vol. 58, pt. 1, no. 3, p.
288, 1889 (15 to 30 miles south west
of Puri). — Steindachner, Denks.
Akad. Wiss. Wien, math.-nat. Kl., vol.
71, p. 154, 1902 (Gischn). — Smith
and Pope, Proc. U. S. Nat. Mus., vol.
31, p. 498, 1906 (Kochi; Orado). —
Jenkins, Mem. Indian Mus., vol. 3,
p. 30, 1910. — Bean
and Weed, Proc. U. S. Nat. Mus., vol.
42, p. 610, 1912 (Batavia).

Cynoglossus sindensis Day, Fishes of
India, pt. 3, p. 434, pl. 9d, fig. 6, 1877
(type locality: Sind, India); Fauna British
India, Fishes, vol. 2, p. 455, 1889. —
Jordan and Richardson, Bull. Bur.
Fishes, vol. 27, p. 281, 1907 (1908) (Manila).
— Agilby, Proc. Roy. Soc. Queensland,

vol. 23, p. 37⁽³⁹⁾ 1910 (Crocker Island²⁵³⁷).

— McCulloch, Austral. Mus. Bull.,
no. 5, pt. 2, p. 288, Sep. 10, 1929
(reference).

— Horman, Biol. Res. Endeavour, vol.
5, pt. 5, p. 302, June 15, 1926 (reference).

Depth 4 to $4\frac{1}{5}$; head $3\frac{7}{8}$ to 4, width $4\frac{2}{5}$ to $4\frac{1}{2}$. Snout end to lower orbit $2\frac{2}{5}$ to $2\frac{2}{3}$ in head; lower orbit 9 to $9\frac{1}{2}$, $3\frac{3}{4}$ to 4 in snout; upper orbit $\frac{1}{2}$ to $\frac{3}{4}$ in advance of lower orbit; maxillary extends beyond eye space about $\frac{1}{3}$ diameter of lower orbit; mouth cleft 4 to $4\frac{1}{4}$ in head, front of upper jaw with triangular point extended back well beyond symphysis of mandible; lips entire; hind nostril in front of interorbital; scaly interorbital $\frac{1}{5}$ to $\frac{1}{3}$ in lower orbit. Gill rakers as few feeble rudimentary minute papillae; gill filaments $\frac{1}{3}$ times lower orbit.

Dorsals grayish, with obscure dusky spots, mostly on spines and rays. Caudal with 4 or 5 transverse brown cross bars. Other fins brown.

East Indies, Philippines, Kiu Siu, Formosa, Japan, Queensland, Melanesia. Known chiefly by its second dorsal spine longest.

Scales 80 to 83 in lateral line from above gill opening to caudal base and 5 or 6 more on latter (9 or 10 more forward on head to dorsal intersection); 16 above to upper lateral line, 20 or 21 below. Scales with 19 to 22 basal radiating striae; 7 to 9 small slender apical denticles, with 3 or 4 transverse series of basal elements; circuli fine, complete.

D. 105 to 107, fin height $3\frac{1}{3}$ to $3\frac{2}{5}$ in head; A. 85 to 88, fin height $2\frac{7}{8}$ to $3\frac{1}{3}$; caudal $2\frac{3}{5}$ to 3, ends in point behind; ventral $3\frac{1}{2}$ to 4.

Left side more brown to wood brown, vertical fins inclining to grayish brown and edged

Scales with 12 to 15 basal radiating striae; 63 to 73 apical denticles, with 8 to 12 transverse series of basal elements; circuli fine.

D. X, 9, I, second spine $1\frac{3}{4}$ to 2 in head, first ray $2\frac{3}{4}$ to 3; A. III, 8, I, third spine $3\frac{1}{4}$ to $3\frac{1}{2}$, first ray 3 to $3\frac{1}{8}$; caudal $1\frac{1}{3}$ to $1\frac{1}{2}$ deeply emarginate; least depth of caudal peduncle 3 to $3\frac{1}{8}$; pectoral $1\frac{1}{4}$; ventral $1\frac{1}{2}$ to $1\frac{3}{5}$.

Brown, paler below. Dusky blotch, little smaller than eye, below lateral line well behind gill opening. Head vermiculated with little deeper brown, especially on cheeks. About 8 or 9 transverse dark streaks on body, variably broken in most specimens. Several transverse dark bands across front and interorbital. Iris slate gray.

very narrowly pale to whitish.
Orbits grayish. Right side
whitish, vertical fin grayish
to brownish marginally, with
only edge sometimes very narrowly
whitish.

~~P. 5998 (157)~~

~~19981 (139)~~

depth $2\frac{2}{3}$ to $3\frac{1}{8}$; head $2\frac{2}{3}$ to $2\frac{9}{10}$, width $2\frac{1}{8}$ to $2\frac{2}{5}$. Snout $1\frac{4}{5}$ to $2\frac{1}{3}$ in head; eye $3\frac{1}{8}$ to $4\frac{3}{4}$, $1\frac{1}{4}$ to $2\frac{1}{2}$ in snout, greater than interorbital in young to 1 to $1\frac{1}{5}$ with age; maxillary reaches front nostril or nearly to hind nostril with age, length $2\frac{1}{4}$ to $2\frac{7}{10}$ in head; bands of villiform teeth in jaws and outer enlarged row, as 4 front upper canines and 2 lower front ones, and 5 upper postero-laterals as small molars, lower subconic; interorbital $3\frac{3}{4}$ to 4, very slightly convex. Gill rakers 5+5, short low tubercles, greatly less than gill filaments, which $2\frac{1}{2}$ in eye.

Scales 46 or 47 in lateral line to caudal base and 2 or 3 more on latter, 5 or 6 above, 15 below, 8 predorsal,

Cynoglossus borneensis (Bleeker) ²⁵⁵⁵

Plagusia borneensis Bleeker, Act. Soc. Sci. Ind. Néerl. (Borneo), vol. 5, p. 6, 1858-59 (type locality: Sinkawang, Borneo).

Arelia borneensis Bleeker, Act. Soc. Sci. Ind. Néerl. (Borneo), vol. 8, p. 9, 1860.

Cynoglossus borneensis Günther, Cat. Fishes Brit. Mus., vol. 4, p. 498, 1862 (compiled). — Bleeker, Atlas Ichth. Ind. Néerl., vol. 6, p. 34, pl. (14) 245, fig. 5, 1866-72 (type). — Fowler, Proc. Acad. Nat. Sci. Philadelphia, vol. 57, 1905, p. 518 (Baram, Borneo). — Seale, Philippine Journ. Sci., vol. , p. 288, 1910 (Sandakan, North Borneo). — Weber and Beaufort, Fishes Indo Austral. Archip., vol. 5, p. 205, 1929 (compiled).

2556

Depth ~~$3\frac{7}{8}$~~ to 4; head $4\frac{1}{5}$ to ~~$4\frac{1}{5}$~~ ,
width ~~4~~ to $5\frac{1}{4}$. Snout to lower ^{orbit}
 ~~$2\frac{1}{4}$~~ to $2\frac{3}{5}$ in head to snout end;
lower orbit $8\frac{3}{4}$ to ~~$9\frac{1}{2}$~~ , ~~$3\frac{2}{5}$~~ to ~~$3\frac{2}{3}$~~
in snout; upper orbit ~~$\frac{2}{5}$~~ to $\frac{1}{2}$ in
advance of lower; mouth cleft
curved, hooks of upper jaw encroaching
well back over mandible, cleft
reaches to hind eye edge ^{maxillary eye} or $\frac{1}{4}$ of
diameter of lower orbit posteriorly,
length 4 to ~~$4\frac{1}{5}$~~ in head; interorbital
 $1\frac{1}{2}$ to ~~$1\frac{3}{5}$~~ in lower orbit, concave.
Gill rakers absent; gill filaments
 $1\frac{1}{2}$ times lower orbit.

Scales 84 to ~~85~~ in lateral line
from above gill opening to caudal
base (~~10~~ or 11 more forward on
head to dorsal intersection); ~~13~~
~~or~~ 14 above medial lateral line
to upper lateral line, ²¹ ~~17~~ or 18 below
to anal base. Scales ^{greatly} smaller about
edges of body. Caudal base scaly
and ^{dorsal and anal} ~~ventral~~ fins with finely
scaled well marked basal scaly
sheaths. Scales with 28 to 30 basal

2537

radiating striae; 8 to 30 slender apical denticles, with 2 or 3 transverse series of ~~apical~~ basal elements; circuli fine. Scales of left side ctenoid, of right side cycloid. Two lateral lines on left side, one distinct on right side.

D. 104, fin height $3\frac{1}{4}$ in head; A. 82, fin height $3\frac{1}{5}$; caudal 3; ventral $4\frac{3}{4}$.

Left side brown, uniform. Dark neutral gray tinge on opercular region. Orbits neutral gray. Fins brownish marginally. Right side whitish, fins rather dark brown marginally.

East Indies.

12292. Manila market. December 12 to 18, 1907. Length 179 mm.

2558

Cynoglossus brachycephalus Bleeker

Cynoglossus brachycephalus Bleeker,
Atlas Ichth. Ind. Néerl., vol. 6, p. 38,
pl. (13) 244, fig. 6, 1866-72 (type
locality: Western Sumatra). — Regan,
Trans. Linn. Soc. London, vol. 12, pt. 3,
p. 235, May 1908 (Mulaku, Maldives;
Caragador Carajor). — Weber, Siboga
Exped., vol. 57, p. 441, 1913 (Madura
Strait). — Horman, Rec. Indian Mus.,
vol. 30, pt. 2, p. 211, fig. 27, July 1928
(Persian Gulf; Mekran; Ganjam;
Madras; 3 miles north north west of
Brown Rocks; ^{Amirantes; Caragador Carajor; Seychelles; Maldives; Ceylon;} 13 to 49 fathoms). —
Weber and Beaufort, Fishes of Indo
Austral. Archip., vol. 5, p. 267, 1929
(Java Sea; Java; Bali; Weber's
material).

Cynoglossus praecisus Alcock, Ann.
Mag. Nat. Hist., ser. 6, vol. 6, p. 442,
1890 (type locality: Ganjam coast,
33 fathoms).

2559

Cynoglossus brevirostris Johnstone,
Ceylon Pearl Oyster Fish., Suppl.
Rep. 15, p. 209, 1904

Cynoglossus kopsii (not Bleeker)
Regan, Trans. Linn. Soc. London, Zool.,
vol. 12, p. 235, 1908.

Cynoglossus sibogae Weber, Siboga Exped.,
vol. 57, p. 442, fig. 83, 1913 (type
locality: Molo Strait; Salibabu; 36
to 91 meters). — Weber and Beaufort,
Fishes Indo Austral. Archip., vol. 5,
p. 200, fig. 50, 1929 (types).

Areliscus natalensis Von Bonde, Rep.
Fish. Mar. Biol. Surv. South Africa,
2, Spec. Rep. 1, p. 23, pl. 4, fig. 2,
1922 (type locality: off Natal, 29 fathoms).

Areliscus ecandatus (not Gilchrist)
Barnard, Ann. South African Mus., vol.
21, pt. 1, p. 415, June 1925 (part).

Depth $3\frac{1}{2}$ to $3\frac{3}{5}$; head $4\frac{2}{5}$ to $4\frac{4}{5}$, width $3\frac{3}{4}$ to $4\frac{1}{4}$. Snout end to lower orbit 3 to $3\frac{1}{8}$ in head; lower orbit 5 to $5\frac{1}{3}$, $1\frac{4}{5}$ to 2 in snout; upper orbit $\frac{1}{4}$ to $\frac{2}{5}$ in advance of lower orbit; mouth cleft reaches $\frac{3}{5}$ below lower orbit, length $3\frac{1}{3}$ to $3\frac{3}{5}$ in head; interorbital not distinct, eyes nearly touching. No gill rakers; gill filaments long as lower orbit.

Scales 52 to 54 in lateral line from above gill opening to caudal base (7 or 8 more forward on head to dorsal intersection); 9 above to upper lateral line 10 or 11 below to anal base. All scales ctenoid. Caudal base scaly, fins otherwise naked. Scales with 36 to 38 close set radiating basal striae; 25 to 28 short apical denticles, with 2 or 3 transverse series of apical basal elements; circuli fine. Two lateral lines on left side, none only axial one on right side.

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apparently not perforating scales.
D. 94 to 98, fin height $2\frac{3}{4}$ to 3; A. 81 to 84, fin height $2\frac{1}{2}$ to $2\frac{3}{4}$; caudal $2\frac{1}{2}$ to $2\frac{3}{4}$; ventral $2\frac{2}{5}$ to $2\frac{4}{5}$.

Left side rather warm brown, clouded with slightly darker. Orbits dark gray. Fins pale, gray; each ray with dark or dusky markings. Right side whitish, markings on vertical fin rays grayish.

Persian Gulf, Natal, Maldives, Seychelles, India, Ceylon, East Indies, Philippines.

3249, 3250. D. 5360. Corregidor Light, N. 74° W., 6.9 miles (Lat. $14^{\circ}21'N.$, $120^{\circ}41'E.$), Manila Bay. In 12 fathoms. February 7, 1909. Length 90 to 97 mm.

1 example. Cotabato, below mouth of river, Mindanao. May 20, 1908. Length 80 mm.

2 examples. D. 5442. San Fernando
Point Light, N. 39° E., 8.4 miles
(lat. 16° 30' 36" N., long. 120° 11' 06"
E.), Cuyos Islands. In 45 fathoms.
May 10, 1909. Length 79 to 102 mm.

Cynoglossus brevirostris Day

Cynoglossus brevirostris Day, Fishes of India, pt. 3, p. 437, pl. 97, fig. 6, 1877 (type locality: Madras); Fauna British India, Fishes, vol. 2, p. 459, 1889. — Norman, Rec. Indian Mus., vol. 30, pt. 2, p. 212, fig. 29, July 1928 (type).

Cynoglossus brevis Günther

2564

Cynoglossus brevis Günther, Cat. Fishes Brit. Mus., vol. 4, p. 500, 1862 (type locality: Ganges). — Day, Fishes of India, vol. 3, p. 437, pl. 97, fig. 2, 1877 (Calcutta); Fauna British India, Fishes, vol. 2, p. 459, 1889. — Alcock, Journ. Asiatic Soc. Bengal, vol. 58, pt. 1, no. 3, p. 289, 1889 (off Chilka Lake bar). — Hora, Mem. Indian Mus., vol. 5, pt. 5, p. 760, 1923 (Chilka Lake). — Horman, Rec. Indian Mus., vol. 30, pt. 2, p. 206, fig. 22, July 1928 (Ganyam, Orissa, Chilka Lake, Calcutta, Ganges).

Cynoglossus buchanani ^(not) ~~(part)~~ Day, Proc. Zool. Soc. London, 1869, p. 522 (part)

Cynoglossus durbanensis Regan, Ann. Durban Mus., vol. 3, ^{pt. 1,} p. 2, 1921 (type locality:). — Barnard, Ann. South African Mus., vol. 21, pt. 1, p. 412, June 1925 (Natal; Delagoa Bay).

Cynoglossus broadhursti Waite ²⁵⁶⁵

Cynoglossus broadhursti Waite, Rec.
Austral. Mus., vol. 6, pt. 2, p. 73, pl.
8, fig. 2, Sep. 15, 1905 (type locality:
off Carnarvon northward of Houtman's
Abrolhos, Western Australia). —

McCulloch, Austral. Mus. Mem., no. 5,
pt. 2, p. 288, Sep. 10, 1929 (reference).

~~McCulloch~~ Horman, Biol. Res. Endeavour,
vol. 5, pt. 5, p. 302, June 1926 (off Murray
River, 20 fathoms). —

2564

Cynoglossus cantoris (Bleeker)

Plagusia cantoris Bleeker, Verh. Batavia.
Genoot. (Bengal. Hind.), vol. 25, p. 76
(153), 1853 (type locality: Hindostan
[may be Malaya?]).

Cynoglossus cantoris Günther, Cat. Fishes
Britt. Mus., vol. 4, p. 502, 1862 (Singapore).
— Bleeker, Atlas Ichth. Ind. Néerl.,
vol. 6, p. 33, 1866-72 (compiled). —
Weber and Beaufort, Fishes Indo
 Austral. Archip., vol. 5, p. 196, 1929
(compiled).

Cantor pinangensis Kaup, Archiv
Naturges., vol. 24, pt. 1, p. 106, 1858 (on
Cantor).

Plagusia potous (not Cuvier) Cantor,
Journ. Asiatic Soc. Bengal, vol. 18,
pt. 2, p. 1217, 1849 (1850) (type locality:
Sea of Malayan Peninsula and islands).

2567

Cynoglossus cynoglossus (Buchanan-Hamilton)

Archius cynoglossus Buchanan-Hamilton,
Fishes of Ganges, pp. 132, 373, 1822
(type locality: Ganges tidal mouth). —
Hora, Mem. Indian Mus., vol. 9, no. 4,
pl. 19, figs. 2-3, 1929 (Buchanan-Hamilton's
figures).

Plagusia cynoglossa Cantor, Journ. Asiatic
Soc. Bengal, vol. 18, pt. 2, p. 1211, 1849
(1850) (Pinang Sea). — Bleeker, Verh.
Batavia. Genoot. (Bengal. Hind.), vol.
26, p. 91, 1853 (reference).

Icania cynoglossa Kaup, Archiv naturges.,
vol. 24, pt. 1, p. 109, 1858 (reference).

Cynoglossus cynoglossus Norman, Rec.
Indian Mus., vol. 30, pt. 2, p. 208, fig. 24,
July 1928 (Calcutta, Passar River, Shela,
Sunderbans, Rangamati, Moisarabha,
Ganges).

2568

Plagusia bengalensis Bleeker, Verh.
Batavia. Genoot. (Bengal. Hind.), vol.
25, p. 152, pl. 6, fig. 3, 1853 (type
locality: Calcutta).

Cynoglossus bengalensis Günther, Cat.
Fishes Brit. Mus., vol. 4, p. 499, 1862
(Ganges River). — Day, Fishes of
India, pt. 3, p. 435, pl. 97, fig. 4,
1877; Fauna British India, Fishes,
vol. 2, p. 457, 1889. — Johnstone, Ceylon
Pearl Oyster Fisher., Suppl. Rep. 15, p.
209, 1904.

Cynoglossus buchanani Day, Proc. Zool.
Soc. London, 1869, p. 522 (type locality:
India).

Cynoglossus deltae Jenkins

2569

Cynoglossus deltae Jenkins, Rec.

Indian Mus., vol. 5, p. 130, 1910 (type
locality: Morrelganj, ~~Khulna~~,
Sundarbans). — Horman, Rec. Indian
Mus., vol. 30, pt. 5, p. 212, fig. 28,
July 1928 (types).

Cynoglossus diplasios Jordan and
Evermann

Cynoglossus diplasios Jordan and
Evermann, Proc. U. S. Nat. Mus., vol.
25, p. 367, fig. 29, 1902 (type locality:
Formosa). — Ogilby, Proc. Roy. Soc.
Queensland, vol. 23, p. 39, 1910 (1911)
(diagnosis in key).

Cynoglossus dispar Day

2571

Cynoglossus dispar Day, Fishes of India, pt. 3, p. 434, pl. 96, fig. 2, 1877 (type locality: Bombay; Madras); Fauna British India, Fishes, vol. 2, p. 456, 1889; — Horman, Rec. Indian Mus., vol. 30, pt. 2, p. 199, fig. 14, July 1928 (types; Madras).

{ Ogilby, Proc. Roy. Soc. Queensland, vol. 23, p. 39, 1910 (1911) (diagnosis in key).

Cynoglossus dubius Day

2572

Cynoglossus dubius Day, Fishes of India,
pt. 3, p. 435, pl. 95, fig. 2, 1877 (~~type~~
~~locality~~: Sind; Beloochistan; Gwadar);
Fauna British India, Fishes, vol. 2,
p. 456, 1889. — Horman, Rec. Indian

Mus., vol. 30, pt. 2, p. 200, fig. 15,
July 1928 (Karachi, Bombay, Travancore).

Journ. Linn. Soc. London, Zool., vol. 11, p.
525, 1873 (type locality: Gwadar);

(— Ogilby, Proc. Y. Roy. Soc. Queensland,
vol. 23, p. 39, 1910 (1911) (diagnosis in
key).

2573

Cynoglossus scandatus Gilchrist

Cynoglossus scandatus Gilchrist,
Marine Investig. South Africa, vol.
4, p. 162, pl. 46, 1906 (type locality:
Amatikulu River mouth, north west
by West $\frac{3}{4}$ W., 12 miles; "Cape Point,
E. by N. $\frac{3}{4}$ N., 34 miles ^[off Regela River]; Durban;
26 to 600 fathoms). — Gilchrist and
Thompson, Ann. Durban Mus., vol. 1,
pt. 4, p. 398, 1917 (reference).

Cynoglossus scandatus Regan, Ann.
Durban Mus., vol. 2, pt. 5, p. 222,
1920 (katal; corrected orthography).

Arctiscus scandatus Barnard, Ann.
South African Mus., vol. 21, pt. 1, p.
415, June 1925 (katal; Zululand;
26 to 30 fathoms).

Nat. Sci. Philadelphia, series 2, vol. 12,
1904, p. 529 (Padang). $\frac{1}{m}$ Steindachner,
Sitz. Ber. Akad. Wiss. Wien, math.-
naturwiss. Klasse, vol. 115, pt. 1, 1905, p.
1385 (Upolu, Samoa). $\frac{1}{m}$ Seale and
Bean, Proc. U. S. Nat. Mus., vol. 33, 1907, p.
244 ($\frac{1}{m}$ Southwell, Ceylon Administr. Rep., 1912-13, p. E41, E43, E44, E45, E48).
(Zamboanga). $\frac{1}{m}$ Jugmayer, Abhandl.
Kon. Bayer. Akad. Wiss., math.-physik.
Klasse, vol. 26, band 6, 1913, p. 11 (Mebran
 $\frac{1}{m}$ Malpas, Ceylon Administrat. Rep., 1921, p. E7.
and Uman). $\frac{1}{m}$ Barnard, Ann. South
African Mus., vol. 21, pt. 2, 1927, p. 632
(Natal coast, Delagoa Bay, Mozambique).
 $\frac{1}{m}$ Herre and Montalban, Philippine
Journ. Sci., vol. 33, no. 4, August 1927,
p. 402, pl. 1, fig. 3 (Polillo Island, Manila,
Calapan, Tablas, Bantayan Islands,
Subic Bay, Agutaya, Dipolog, Zamboanga,
Tandubas Island). $\frac{1}{m}$ Fowler, Mem.
Bishop Mus., vol. 10, 1928, p. 216 (Palmyra,
Marcus, Mukuhiva, Fakarawa, Easter

(Ceylon pearl banks).

2574

Cynoglossus elongatus Günther

Cynoglossus elongatus Günther, Cat.

Fishes Brit. Mus., vol. 4, p. 501, 1862
(type locality: Pinang; Cantor's specimen).

Tirant, Serv. Océan. Pêch. Indo
Chine, 6^e note, p. 172, 1929 (Phu Yen). —
Chevey, Inst. Océan. Indo Chine, 19^e note,
p. 27, Aug. 25, 1932 (Annam).

Plagusia lingua (not Buchanan-Hamilton)
Cantor, Journ. Asiatic Soc. Bengal, vol.
18, pt. 2, p. 1215, 1849 (1850) (Sea of
Pinang).

2575

Cynoglossus favosquamis (Richardson)

Plagusia favosquamis Richardson,
Ichth. China Japan, p. 281, 1846 (type
locality: coast of China; Canton). —
Kaup, Archiv Naturges., vol. 24, pt. 1,
p. 110, 1858 (reference).

Cynoglossus favosquamis Bleeker,
Nederl. Tijds. Dierk., vol. 4, p. 131,
1873 (1874) (reference). — Chu, Biol.
Bull. St. John's Univ. Shanghai, no. 1,
p. 94, Jan. 1931 (reference).

Cynoglossus gilchristi Ogilby²⁵⁷⁶

Cynoglossus gilchristi Ogilby, Proc.
Roy. Soc. Queensland, vol. 23, p. 39,
1911 (on Gilchrist). — Regan, Ann.
Durban Mus., vol. 2, pt. 5, p. 222, 1920
(Natal). — Barnard, Ann. South
African Mus., vol. 21, pt. 1, p. 412, June
1925 (Natal; Delagoa Bay; 4 to 30 fathoms).

Cynoglossus brachycephalus (not
Bleeker) Gilchrist, Marine Investig.
South Africa, vol. 3, p. 12, pl. 30,
1903 (type locality: $2\frac{1}{2}$ miles off
Umhlanga River mouth, Natal, 22
to 26 fathoms). — Von Bonde, Fisher.
Mar. Biol. Surv., Rep. No. 2, pt. 1,
p. 25, 1922 (note).

— Gilchrist and Thompson, Ann.
Durban Mus., vol. 1, pt. 4, p. 399, 1917
(reference).

Islands; not Tahiti and Tempe specimens); Proc. Acad. Nat. Sci.

Philadelphia, 1929 (1930), p. 609 (Hong Kong), p. 642 (Padang and Kuching).

Lethrinella miniata Jordan and Seale, Bull. Bur. Fisher., vol. 25, 1905 (1906), p. 270 (Upia). $\frac{1}{m}$ Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, 1911, p. 291 (Rangiroa and Fakarava).

Lethrinus rostratus (Kuhl and Van Hasselt) Valenciennes, Hist. Nat. Poiss., vol. 6, 1830, p. 220. Batavia. $\frac{1}{m}$ Günther, Cat. Fishes Brit. Mus., vol. 1, 1859, p. 454 (Moluccas, Amboyna, Ceram, Ceylon). $\frac{1}{m}$ Day, Fishes of India, pt. 1, 1875, p. 134, pl. 33, fig. 1 (Bombay). $\frac{1}{m}$ Bleeker, Atlas Ichth. Ind. Néerland., vol. 8, 1876-77, pl. (3) 309, fig. 3. $\frac{1}{m}$ Meyer, An. Soc. Españ. Hist. Nat. Madrid, vol. 14, 1885, p. 19 (North Celebes). $\frac{1}{m}$ Kendall and Goldsborough,

2577

Cynoglossus grammicus (Richardson)

Plagiusa grammica Richardson,
Ichth. China Japan, p. 280, 1846 (type
locality: coasts of China, Canton).
— Kaup, Archiv Naturges., vol. 24, pt.
1, p. 110, 1858 (name).

Cynoglossus grammicus Bleeker, Nederl.
Tijds. Dierk., vol. 4, p. 131, 1873 (1874)
(reference). — Chu, Biol. Bull. St.
John's Univ., Shanghai, no. 1, p. 95,
Jan. 1931 (reference).

Cynoglossus grandisquamis (Cantor) ²⁵⁷⁸

Plagusia grandisquamis Cantor, Journ.
Asiatic Soc. Bengal, vol. 18, pt. 2, p. 1214,
1849 (1850) (type locality: Sea of Pinang).

Trulla grandisquamis Kaup, Archiv
Naturges., vol. 24, pt. 1, p. 109, 1858
(no locality).

Cynoglossus grandisquamis Günther,
Cat. Fishes Brit. Mus., vol. 4, p. 503,
1862 (type). — Duncker, Mitteil. Naturh.
Mus. Hamburg, vol. 21, p. 169, 1904
(Singapore). — Weber and Beaufort,
Fishes Indo Austral. Archip., vol. 5,
p. 208, 1929 (compiled).

2579

Cynoglossus hamiltonii Günther

Cynoglossus hamiltonii Günther, Cat.
Fishes Brit. Mus., vol. 4, p. 504, 1862
(type locality: Pinang). — Day, Fishes
of India, pt. 3, p. 436 (not figure),
1877; Fauna of British India, Fishes,
vol. 2, p. 458, 1889 (part). — Duncker,
Mitteil. naturh. Mus. Hamburg, vol. 21,
p. 169, 1904 (Singapore). — Norman,
Rec. Indian Mus., vol. 30, pt. 2, p. 205,
July 1928 (name).

2580

Cynoglossus kapuasensis Fowler

Cynoglossus kapuasensis Fowler, Proc.
Acad. Nat. Sci. Philadelphia, 1905, p.
519, fig. 16 (type locality: Kapuas River,
Borneo). — Seale, Philippine Journ.

Sci., vol. 5, no. 4, p. 288, 1910 (Sandakan).

Cynoglossus feldmanni (not Bleeker) Weber
and Beaufort, Fisher Indo Austral.
Archip., vol. 5, p. 192, 1929 (part).

Cynoglossus kapwasensis *

Cynoglossus kaupii (Bleeker)

2581

Arelia kaupii Bleeker, Act. Soc. Sci.
Ind. Néerl. (Sumatra), vol. 8, p. 73,
1860 (type locality: Benkulen, Sumatra).

Cynoglossus kaupii Günther, Cat. Fishes
Brit. Mus., vol. 4, p. 497, 1862 (copied).

— Ogilby, Proc. Roy. Soc. Queensland, vol. 23, p. 39, 1910 (1911) (diagnosis in key).

Cynoglossus kaupii Bleeker, Atlas Ichth.

Ind. Néerl., vol. 6, p. 32, pl. (13) 244,

fig. 4, 1866-72 (type). — Weber and

Beaufort, Fishes Indo Austral. Archip.,
vol. 5, p. 196, 1929 (copied).

Cynoglossus lida (Bleeker)

2582

Plagusia lida Bleeker, Naturk. Tijds.
Nederl. Indië, vol. 1, p. 413, 1851 (type
locality: Batavia); Verh. Batavia.
Genoot., no. 9, vol. 24, p. 23, 1852 (types).
— Kaup, Archiv naturges., vol. 24, pt. 1,
p. 110, 1858 (name).

Arelia lida Bleeker, Act. Soc. Sci. Ind.
Néerl. (Enum. Pisc.), vol. 6, p. 184, 1859
(reference).

Cynoglossus lida Günther, Cat. Fishes
Brit. Mus., vol. 4, p. 498, 1862 (no locality).
— Bleeker, Atlas Ichth. Ind. Néerl., vol.
6, p. 36, pl. (12) 243, fig. 2, 1866-72
(Java; Celebes). — Day, Fishes of India,
pt. 3, p. 436, pl. 97, fig. 3, 1877. — Meyer,
Anal. Soc. Españ. Hist. Nat. Madrid,
vol. 14, p. 40, 1885 (North Celebes). — Day,
Fauna British India, Fishes, vol. 3, p.
458, 1889. — Alcock, Journ. Asiatic Soc.
Bengal, vol. 58, pt. 1, no. 3, p. 288, 1889
(south-west of Puri). — Vinciguerra,

Ann. Mus. Civ. Stor. Nat. Genova, vol.
29, p. 188, 1890 (Rangoon). — Regan,
Ann. Durban Mus., vol. 2, p. 221, fig. 5,
1920 (Durban, Natal). — Barnard, Ann.
South African Mus., vol. 21, pt. 1, p. 411,
June 1925 (Natal coast). —
Horman, Records Indian Mus., vol. 30,
pt. 2, p. 210, fig. 26, July 1928 (Madras,
Ganjam, Orissa, Puri). — Weber and
Beaufort, Fishes Indo Austral. Archip.,
vol. 5, p. 203, 1929 (Salibabu).

Cynoglossus intermedius Alcock, Journ.
Asiatic Soc. Bengal, vol. 58, pt. 1, no. 3,
p. 288, 1889 (type locality: 32 miles
south west of Puri, Bengal Bay).

? Cynoglossus ox Fowler, Journ. Acad.
Nat. Sci. Philadelphia, ser. 2, vol. 12,
pt. 4, p. 556, pl. , fig., 1904
(type locality: Padang, Sumatra).

Cynoglossus lighti horman

2584

Cynoglossus lighti horman, Ann. Mag.
Nat. Hist., ser. . . , vol. 16, p. 270, 1925
(type locality: Wenchow; Amoy). —
Chu, Biol. Bull. St. John's Univ.
Shanghai, no. 1, p. 95, Jan. 1931 (reference).

2585-

Cynoglossus lineolatus Steindachner

Cynoglossus lineolatus Steindachner,
Sitzb. Ber. Akad. Wiss. Wien, math.-nat.
Kl., vol. 55, ~~pts~~ p. 588, 1867 (type
locality: Hong Kong). — Rutter, Proc.
Acad. Nat. Sci. Philadelphia, 1897,
p. 88 (Swatow). — Reeves, Journ.
Pan Pac. Res. Inst., vol. 2, no. 3, p. 14,
July - Sep. 1927 (reference). — Chen,
Biol. Bull. St. John's Univ. Shanghai,
no. 1, p. 95, Jan. 1931 (reference).

2586

Cynoglossus lingua Buchanan-Hamilton

Cynoglossus lingua Buchanan-Hamilton,
Fishes of Ganges, pp. 32, 365, 1822
(type locality: Calcutta and salt estuaries).
— Gunther, Cat. Fishes Brit. Mus., vol.
4, p. 501, 1862 (Ganges). — Day, Fishes
of India, pt. 3, p. 433, pl. 96, fig. 1,
1877 (Calcutta); Fauna British India,
Fishes, vol. 2, p. 454, fig. 163, 1889. —
— Vinciguerra, Ann. Mus. Civ. Stor. Nat.
Genova, vol. 29, p. 190, 1890 (Rangoon).
— Hora, Mem. Asiatic Soc. Bengal,
vol. 6, pt. 9, p. 476, 1924 (Tale' Wap,
Peninsular Siam). — Horman, Rec.
Indian Mus., vol. 30, pt. 2, p. 200, fig. 16,
July 1928 (Madras, Calcutta, Kan Kundigee,
Sattermukai River, Kishitia, Rangabali,
Morrelganj, Hughli River mouth,
Habaspur, Morison Bay, Orissa,
north east Bengal, Ganges, Burma).
— Weber and Beaufort, Fishes Indo
Austral. Archip., vol. 5, p. 203, 1929
(Sumatra, Java).

2587.

Plagusia lingua Cantor, Journ. Asiatic Soc. Bengal, vol. 18, pt. 2, p. 1215, 1849 (1850) (part).

Plagusia lingua Jerdon, Madras Journ. Lit. Sci., vol. 17, No. 39, p. 148, 1851 (1853).

Arelia lingua Kaup, Archiv Naturges., vol. 24, pt. 1, p. 107, 1858 (reference).

Pleuronectes potous Cuvier, Règne Animal, ed. 2, vol. 2, p. 344, 1829 (on Jerree potoo D. Russell, Fishes of Coromandel, vol. 1, p. 57, pl. 73, 1803; type locality: Vizagapatam).

Plagusia potous Bleeker, Verh. Batavia. Genoot., No. 9, vol. 24, p. 23, 1852 (Batavia). — Jerdon, Madras Journ. Lit. Sci., vol. 17, No. 39, p. 148, 1851 (1853).

Arelia potous Kaup, Archiv Naturges., vol. 24, pt. 1, p. 108, 1858 (reference). — Bleeker, Act. Soc. Sci. Ind. Néerl. (Enum. Pisc.), vol. 6, p. 185, 1859 (reference).

2588

Cynoglossus potous Bleeker, Atlas
Ichth. Ind. Néerl., vol. 6, p. 33, pl.
(10) 241, fig. 4, 1866-72 (Java, Sumatra,
Pinang, Singapore, Banka, Borneo). —
Bean and Weed, Proc. U. S. Nat. Mus.,
vol. 42, p. 610, 1912 (Batavia).

Acheiris jibha Buchanan-Hamilton, in
Cantor, Journ. Asiatic Soc. Bengal, vol.
18, pt. 2, p. 1215, 1849 (1850) (name in
foot note).

Cynoglossus macrorhynchus (not Bleeker)
Kner, Reise Novara, Fische, p. 295, 1865
(Java).

Cynoglossus elongatus (not Günther)
Day, Fishes of India, vol. 3, p. 433,
pl. 90, fig. 5, 1877 (Madras); Fauna
British India, Fishes, vol. 2, p. 454, 1889.

Cynoglossus acinaces Jenkins, Rec.
Indian Mus., vol. 5, p. 130, 1910
(type locality: Sunderbans⁴²).

^{5 1/8 to} ~~5 1/8 to~~
 Depth $\sim 5 \frac{4}{5}$; head $4 \frac{1}{8}$ to $4 \frac{1}{4}$,
 width $5 \frac{1}{4}$. Snout end to lower
 orbit $2 \frac{1}{5}$ ^{to $2 \frac{1}{2}$} in head; lower
 orbit ~ 9 , ^{$7 \frac{3}{4}$ to} $3 \frac{1}{3}$ to $4 \frac{2}{5}$ in snout,
 upper orbit (in advance $\frac{1}{2}$);
~~maxillary~~ reaches slightly behind
 lower orbit; mouth corner
 nearer gill opening $1 \frac{1}{4}$ ^{orbital} ~~supra~~ $\sim$
 diameters than to snout end;
 mouth cleft $\sim 4 \frac{1}{2}$ ^{$4 \frac{1}{3}$ to} in head,
 hook extended well back over
 symphysis of mandible;
 interorbital narrow, $\frac{1}{2}$ lower
 orbit. Gill ~~filaments~~ as minute
 rudimentary papillae; gill filaments
 $1 \frac{1}{4}$ times lower orbit.

Scales 72 ^{73} $\sim$ in median lateral
 line from above gill opening to

no. 4, Sep. 1914, p. 255, fig. 27 (Misaki).

¹/_m Izuka and Matsura, Cat. Zool. Spec. Tokyo Mus., Decembr., 1920, p. 150 (Tateyama, Boshu). ¹/_m Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, no. 2, June 27, 1925, p. 238 (Misaki).

9 Banjor typus Bleeker, Arch. Néerland. Sci. Nat. Harlem, vol. 11, 1876, p. 277.

no locality. (An Anoplus banjor Richardson.)

9 Anoplus maculatus (Döderlein) Steindachner and Döderlein, Denkschr. Akad. Wiss. Wien, math.-naturw. Classe, vol. 48, 1884, p. 7 (name in text; mt. name for young). Tokyo.

Depth 2; head $2\frac{4}{5}$, width $2\frac{1}{4}$.

Snout $2\frac{3}{4}$ in head; eye $2\frac{2}{3}$, $1\frac{1}{10}$ in snout, greater than interorbital; maxillary reaches eye, expansion $2\frac{3}{4}$ in eye, length $2\frac{3}{5}$ in head; teeth simple, conic, outer row slightly

caudal base (8 ~~or~~ more forward
on head to intersection above
preopercle); 12 above to upper
lateral line, 14 below to
anal fin base. Lateral lines 2
on left side, apparently none
on right side. Scales with 19
or 20 close set slightly radiating
basal striae; 15 or 16 slender
apical denticles, largest medially
and 3 or 4 ^{transverse} series of smaller ones
basally; ~~the~~ circuli fine. Right
scales cycloid.

D. $13\frac{2}{3}$ ^{to 13.5}, fin height $3\frac{3}{4}$ ^{to 4 $\frac{1}{4}$}
head; A. $10\frac{4}{5}$ ^{to 10.6}, fin height $3\frac{1}{2}$ ^{to 4 $\frac{1}{5}$}
caudal $1\frac{3}{4}$ ^{to 3 $\frac{2}{3}$} , ventral 4 to $4\frac{2}{5}$

Left side largely uniform
dull cinnamon, ~~with dark spots~~
~~along each~~ along each

Banjox banjox (Richardson) ^{ca 129}

Anoplus banjox Richardson, Ichth. China
Japan, 1846, p. 236. Sea of Japan.
(du Schlegel). ¹ Sinther, Cat. Fishes
British Mus., vol. 1, 1859, p. 264 (Japan).

→ Jordan and Snyder, Proc. U. S. Nat. Mus.,
vol. 23, 1900, p. 357 (Tokyo); Annot. Zool.
Japon., vol. 3, 1901, p. 82 (Yokohama and
Nagasaki). ¹ Jordan and Evermann, Proc.
U. S. Nat. Mus., vol. 25, 1902, p. 351 (Formosa).
¹ Jordan and Richardson, Mem. Carnegie
Mus., vol. 4, no. 4, 1909, p. 138 (Formosa).

¹ Steindachner and Döderlein, Denkschr.
Akad. Wiss. Wien, math.-naturw. Classe,
vol. 48, 1884, p. 7, pl. 4, fig. 1 (Tokyo).

Anoplus Schlegel, Fauna Japonica, Poiss.,
pt. 1, 1842, p. 17, pl. 8. Japan.

Banjox banjox Jordan and Thompson,
Proc. U. S. Nat. Mus., vol. 41, 1912, p. 540, fig.
2 (Tokyo); Mem. Carnegie Mus., vol. 6,

edge next to dorsal and anal edges narrowly whitish. Orbits grayish. Lower posterior portion of head dark or neutral gray, on both sides. Vertical fins pale brownish basally, each ray with dark streak and fin terminally all pale. Right side whitish.

India, Burma, Siam,
East Indies.

11
steep front profile. Snout deep,
compressed, ends in low point. Mouth
low, little inclined, jaws equal.
Interorbital with 2 low longitudinal
ridges. Preorbital deeper than long.
Preopercle edge very finely serrated.
Gill rakers short, thick, lower 14 on
first arch. Scales small, on soft dorsal,
anal and caudal bases. Fine scales on
cheek. Upper or front surface of head
naked. Dorsal spines 10, rays 12.
Anal spines 3, rays 7. Caudal peduncle
moderate.

1 example. Sandakan Bay,
Borneo. March 2, 1908. Length
140 mm.

5274. Sandakan Bay, Borneo.
March 21, 1908. Length 266 mm.

2593

Cynoglossus maccullochi Norman

Cynoglossus maccullochi Norman,
Biol. Res. Endeavour, vol. 5, pt. 5, p.
302, fig. 13, June 15, 1926 (type locality:
north west of Himmochy Islands,
Queensland). — McCulloch, Austral.
Mus. Mem., ^{14 to 16 fathoms} vol. 5, pt. 2, p. 288, Sep.
10, 1928 (reference).

2594

Cynoglossus macrolepidotus (Bleeker)

Plagusia macrolepidota Bleeker, Naturk.
Tijds. Nederl. Indië, vol. 1, p. 415, 1850
(type locality: Batavia); Verh. Batavia.
Genoot., no. 9, vol. 24, p. 25, 1852 (types).
— Kaup, Archiv Naturges., vol. 24, pt. 1,
p. 110, 1858 (reference).

Arelia macrolepidota Bleeker, Liet. Soc.
Sci. Ind. Néerl. (Enum. Pisc.), vol. 6,
p. 184, 1859 (reference).

Cynoglossus macrolepidotus Günther,
Cat. Fishes Brit. Mus., vol. 4, p. 496,
1862 (no locality). — Kner, Reise Novara,
Fische, p. 294, 1865 (Java, Ceylon, Manila,
Hong Kong). — Bleeker, Atlas Ichth.
Ind. Néerl., vol. 6, p. 34, pl. (11) 242, fig.
2, 1866-72 (Java, Sumatra, Banca);
Nederl. Tijds. Dierk., vol. 4, p. 131, 1873
(1874) (Hong Kong record). — Martens,
Preuss. Exped. Ost Asien, vol. —, pp. 210,
339, 1876 (Yokohama, Japan). — Day,
Fishes of India, pt. 3, p. 434, pl. 96,

fig. 3, 1877; Fauna British India,
Fishes, vol. 2, p. 455, 1889. — Alcock,
Journ. Asiatic Soc. Bengal, vol. 58,
pt. 1, no. 3, p. 288, 1889 (Bengal Bay).
— Rutter, Proc. Acad. Nat. Sci. Philadelphia,
1897, p. 89 (Swatow). — Jenkins, Mem.
Indian Mus., vol. 3, p. 30, 1910 ().

— Seale, Philippine Journ. Sci., vol. 5, no.
4, p. 288, 1910 (Sandakan, Borneo). —
Bean and Weed, Proc. U. S. Nat. Mus.,
vol. 42, p. 610, 1912 (Batavia). — Reeves,
Journ. Pan Pac. Res. Inst., vol. 2, no. 3,
p. 14, July-Sep. 1927 (reference). — Horman,
Records Indian Mus., vol. 30, pt. 2, p.
202, fig. 18, July 1928 (Persian Gulf,
north end Persian Gulf, ? Travancore,
Madras, Orissa, Puri, Pratapnagore,
Hughli River mouth, Eastern Channel,
Bengal Bay, Lindamans, Gulf of
Mantaban, Morrison Bay, Akayab,
10 to 110 fathoms). — Weber and Beaufort,
Fishes of Indo Austral. Archip., vol. 5,
p. 205, 1929 (Simalur, Java Sea, Java). —
Tirant, Serv. Océan. Pêch. Indo Chine,

6^e Note, p. 172, 1929 (Cochin China).²⁵⁹⁶ —
Chu, Biol. Bull. St. John's Univ.
Shanghai, no. 1, p. 95, Jan. 1931. (reference).
— Schmidt, Compt. Rend. Acad. Sci.
U. R. S. S., p. 319, 1931 (Fusan, Korea). —
Chevey, Inst. Océan. Pêch. Indo Chine,
19^e Note, Aug. 25, 1932, p. 27 (Cochin
China).

Plagusia oligolepis Bleeker, Nat.
Tijds. Ned. Indië, vol. 7, p. 445, 1854
(type locality: Batavia, Java).

Arelia oligolepis Bleeker, Act. Soc. Sci.
Ind. Néerl. (Enum. Pisc.), vol. 6, p. 185,
1859 (reference).

Cynoglossus oligolepis Günther, Cat. Fishes
Brit. Mus., vol. 4, p. 496, 1862 (no locality).
— Bleeker, Atlas Ichth. Ind. Néerl.,
vol. 6, p. 34, pl. (11) 242, fig. 3 (type). —
Steindachner, Sitzb. Ber. Akad. Wiss.
Wien, math.-nat. Kl., vol. 55, pt. , p. 587,
1867 (Kungpo). — Day, Fishes of India,
pt. 3, p. 433, pl. 95, fig. 4, 1877; Fauna

British India, Fishes, vol. 2, p. 455, 1889.
— Alcock, Journ. Asiatic Soc. Bengal,
vol. 58, pt. 1, no. 3, p. 288, 1889 (Bengal
Bay). — Weber and Beaufort, Fishes
Indo Austral. Archip., vol. 5, p. 206,
1929 (Sumatra, Madura, Java Sea,
South China Sea). — Chu, Biol. Bull.
St. John's Univ., Shanghai, no. 1, p. 95,
Jan. 1931 (reference).

2598

Cynoglossus microstomus horman

Cynoglossus microstomus horman, Rec.
Indian Mus., vol. 30, pt. 2, p. 204, fig.
20, July 1928 (type locality: Calcutta;
Mormugao, Portuguese India).

Cynoglossus hamiltonii (not Günther)
Day, Fishes of India, pt. 3, p. 436, pl.
95, fig. 3, 1877 (Calcutta); Fauna of
British India, Fishes, vol. 2, p. 458,
1889 (part).

2599

Cynoglossus macrophthalmus Horman

Cynoglossus macrophthalmus Horman,
Biol. Res. Endeavour, vol. 5, pt. 5, p.
306, fig. 15, June 15, 1926 (type locality:
off Bustard Head Light, Queensland).
Mc Culloch, Austral. Mus. Mem., ^{20 fathoms}
vol. 5, pt. 2, p. 288, Sep. 10, 1920 (reference).

2600

Cynoglossus macrostomus Norman

Cynoglossus macrostomus Norman, Rec.
Indian Mus., vol. 30, pt. 2, p. 204, fig.
20, July 1928 (type locality: Calcutta;
Mormugao Bay, Portuguese India).
Anisa;

Cynoglossus hamiltoni (not Günther)
Day, Fishes of India, pt. 3, p. 436,
pl. 95, fig. 3, 1877.

2601

Cynoglossus maculipinnis Rendahl

Cynoglossus maculipinnis Rendahl, Kon.
Svensk. Vet. Akad. Händl. Stockholm,
vol. 61, no. 9, p. 17, 1921 (type locality:
Cape Jaubert, North West Australia).

— Mc Culloch, Austral. Mus. Mem., no.
5, pt. 2, p. 289, Sep. 10, 1929 (reference).

— Norman, Biol. Res. Endeavour, vol. 5, pt.
5, p. 362, June 15, 1926 (reference).

2602

Cynoglossus melampetalus (Richardson)

Plagusia melampetala Richardson, Ichth.
China Japan, p. 281, 1846 (type locality:
Coasts of China; Canton). — Kaup,
Archiv Naturges., vol. 24, pt. 1, p. 110,
1858 (name).

Cynoglossus melampetalus Günther, Cat.
Fishes Brit. Mus., vol. 4, p. 496, 1862
(China). — Bleeker, Nederl. Tijds.
Dierk., vol. 4, p. 131, 1873 (1874)
(reference). — Rutter, Proc. Acad.
Nat. Sci. Philadelphia, 1897, p.
(Swatow). — Reeves, Journ. Pan. Pac.
Res. Inst., vol. 2, no. 3, p. 14, July-
Sep. 1927 (Swatow; Ningpo).

2603

Cynoglossus monopus (Bleeker)

Plagusia monopus Bleeker, Verh. Batavia. Genoot., no. 5, vol. 22, p. 11, 1848 (1849)
(type locality: Batavia; Boeleng).

Cynoglossus monopus Bleeker, Atlas Ichth. Ind. Néerl., vol. 6, p. 38, pl. (14) 245, fig. 4, 1866-72 (Java, Bali, Sumatra, Borneo);
Nederl. Tijds. Dierk., vol. 4, p. 131, 1873 (1874) (reference). ✓ Weberland.

— Silcock, Journ. Asiatic Soc. Bengal, vol. 65, pt 2, p. 330, 1896 ().

— Norman, Records Indian Mus., vol. 30, pt 2, p. 204, fig. 19, July 1928
(Puri; Ganjam).

in Bleeker, Verh. Batavia. Genoot., no. 5, vol. 22, p. 11, 1848 (1849) (name in synonymy).

Plagusia melanopterus Bleeker, Natuurk. Tijds. Nederl. Indië, vol. 1, p. 415, 1850
(type locality: Batavia; Boeleng, Bali);
Verh. Batavia. Genoots., no. 9, vol. 24, p. 25, 1852 (types).

2603

Cynoglossus monopus (Bleeker)

Plagusia monopus Bleeker, Verh. Batavia. Genoot., no. 5, vol. 22, p. 11, 1848 (1849) (type locality: Batavia; Boeleng).

Cynoglossus monopus Bleeker, Atlas Ichth. Ind. Néerl., vol. 6, p. 38, pl. (14) 245, fig. 4, 1866-72 (Java, Bali, Sumatra, Borneo); Nederl. Tijds. Dierk., vol. 4, p. 131, 1873 (1874) (reference). — Weber and Beaufort, Fishes Indo Austral. Archip., vol. 5, p. 197, 1929 (Sumatra; Java). — Chu, Biol. Bull. St. John's Univ., Shanghai, no. 1, p. 94, Jan. 1931 (reference).

Plagusia javanica Kuhland and Van Hasselt, in Bleeker, Verh. Batavia. Genoot., no. 5, vol. 22, p. 11, 1848 (1849) (name in synonymy).

Plagusia melanopterus Bleeker, Naturk. Tijds. Nederl. Indië, vol. 1, p. 415, 1850 (type locality: Batavia; Boeleng, Bali); Verh. Batavia. Genoots., no. 9, vol. 24, p. 25, 1852 (types).

lobes with orange brown shades, in form
of definite spots on terminal half as
2 or 3 rows. Pectoral brownish, without
yellowish stripe and somewhat purplish

2604

Arelia melanopterus Bleeker, Act. Soc.
Sci. Ind. Néerl. (Enum. Pisc.), vol. 6,
p. 104, 1859 (reference).

Cynoglossus melanopterus Günther, Cat.
Fishes Brit. Mus., vol. 4, p. 502, 1862
(no locality). — Alcock, Journ. Asiatic
Soc. Bengal, vol. 58, pt. 1, no. 3, p. 289,
1889 (30 to 35 miles south west of Puri).
— Seale, Philippine Journ. Sci., vol. 11,
p. 78, 1914 (Hong Kong). — Chu, Biol.
Bull. St. John's Univ. Shanghai, no. 1, p.
94, Jan. 1931 (reference).

Arelia ceratophrys Kaup, Archiv Naturges.,
vol. 24, pt. 1, p. 108, 1858 (type locality:
no locality; specimen in Paris Museum).

Pleuronectes ceratophrys Kuhl and Van
Hasselt, in Kaup, Archiv Naturges., vol.
24, pt. 1, p. 108, 1858 (name in
synonymy).

2605
Cynoglossus ogilbyi horman

Cynoglossus ogilbyi horman, Biol. Res.
Endeavour, Vol. 5, pt. 5, p. 304, fig. 14,
June 15, 1926 (type locality: Southern
Queensland). — McCulloch, Austral.
Mus. Mem., no. 5, pt. 2, p. 288, Sep. 10,
1929 (reference).

2606

Cynoglossus oxyrhynchus (Bleeker)

Plagusia oxyrhynchus Bleeker, Naturk.
Tijds. Dierk., vol. 1, p. 416, 1850 (type
locality: Batavia); Verh. Batavia.
Genoot., no. 9, vol. 24, p. 26, 1859 (types).
— Kaup, Archiv naturges., vol. 24,
pt. 1, p. 110, 1858 (reference).

Arelia oxyrhynchus Bleeker, Act. Soc.
Sci. Ind. Néerl. (Enum. Pisc.), vol. 6,
p. 185, 1859 (reference).

Cynoglossus oxyrhynchus Günther, Cat.
Fishes Brit. Mus., vol. 4, p. 499, 1862
(no locality). — Bleeker, Atlas Ichth.
Ind. Néerl., vol. 6, p. 36, pl. (14) 245,
fig. 1, 1866-72 (Java, Borneo, Amboina).
— Weber and Beaufort, Fishes Indo
Austral. Archip., vol. 5, p. 201, 1929
(Lombok).

Platycephalidae

Cynoglossus philippinus ^{suyeni} new species ²⁶⁰⁷

Depth $5\frac{1}{8}$; head $4\frac{2}{3}$, width $5\frac{1}{4}$. Snout end to lower orbit

$2\frac{1}{4}$ in head; lower orbit $9\frac{3}{4}$, $4\frac{3}{4}$ in snout; upper orbit $\frac{1}{4}$ in advance of lower; mouth cleft curved, extends opposite hind edge of lower orbit, length $4\frac{1}{5}$ in head; mouth corner $1\frac{1}{4}$ times length of lower orbit nearer gill opening than snout end; interorbital very narrow, width barely $\frac{1}{3}$ of eye. Gill rakers $0 + 10$ low vestigial papillae; gill filaments equal $1\frac{2}{5}$ eye diameters.

Scales 110 in lateral line from above gill opening to caudal

8840. Maculabo Island. June 14, 1909. ⁹⁴⁹

Length 283 mm.

8568. Malapascua Island. March 16, 1909. Length 408 mm. Purplish brown, with dull slate stripes on side of head, little distinct. Yellowish about eye most conspicuous behind eye and above corner of gill opening, where obscurely bordered with dusky purple. Body without stripes or lines. Dorsals and anals with narrow purplish borders and many purplish bars, best seen as fin is held against light. Caudal rays purplish, bright terminally, and margin of fin in fork pale but not white. Caudal spine with black socket. Pectoral dusky olive,

base (16 more forward on head to dorsal intersection); 20 above median lateral line to upper lateral line, 24 below to lower lateral line. Scales all ctenoid. Vertical fins with finely scaled basal sheaths. Scales with 16 to 18 basal radiating striae; 10 to 12 slender rather long apical denticles; circuli moderately fine. Only one right lateral line.

D. 116, fin height $2\frac{1}{3}$ in head; A. 105, fin height $2\frac{1}{6}$; caudal 3, pointed; ventral 4.

Left side uniformly light brown, slightly mottled with darker, mottlings all fine. Fins uniformly pale brownish. Orbits grayish. Right side whitish, fins all slightly brown marginally.

Diagnosis. Somewhat like Cynoglossus heterolepis Weber, but that species with one lateral line on the right side, mine without any. Its color described with varying dark cross bands, in my

specimen simply finely mottled with darker. It also resembles Cynoglossus sealaraki Regan and C. versicolor Tilcock, the former with scales of right side cycloid and latter with but 12 scales between upper and middle lateral line, while in my specimen 20.

U. S. N. M., No. , type.

10073. D. 5291. Escarceo Light, N. ^{2.20} 3⁹° W., ~~2.20~~ miles (lat. 13° 28' 45" N., long. 121° 00' 45" E.), China Sea, vicinity of southern Luzon. In 173 fathoms, July 23, 1908. Length 155 mm. Type.

12-8-43

~~2607~~ through 2609 either
missing or numbered wrongly

P. Wade

Cynoglossus polytaenia (Bleeker)

2610

Plagusia polytaenia Bleeker, Naturk.
Tijds. Ned. Indië, vol. 5, p. 529, 1853
(type locality: Priaman, Sumatra).
Kaup, Archiv Naturges., vol. 24, pt.
1, p. 110, 1858 (name).

Arelia polytaenia Bleeker, Act. Soc.
Sci. Ind. Néerl. (Enum. Pisc.), vol.
6, p. 185, 1859 (reference).

Cynoglossus polytaenia Bleeker, Atlas
Ichth. Ind. Néerl., vol. 6, p. 36, pl. (13)
264, fig. 2 (Sumatra; Singapore;
Amboina). — Weber and Beaufort,
Fishes Indo Austral. Archip., vol. 5,
p. 201, 1929 (Java; Pinang).

2611

Cynoglossus puncticeps (Richardson)

Plagiusa puncticeps Richardson,
Fishes China Jap., p. 280, 1846 (type
locality: China). — Kaup, Archiv
Naturges., vol. 24, pt. 1, p. 110, 1858 (name).

Cynoglossus puncticeps Günther, Cat.
Fishes Brit. Mus., vol. 4, p. 500, 1862
(China). — Kner, Reise Novara, Fische,
p. 297, 1865 (Java). — Bleeker, Atlas
Ichth. Ind. Néerl., vol. 6, p. 37, pl. (15)
246, fig. 7, 1866-72 (Java, Banka,
Singapore, Borneo, Amboina); Nederl.
Tijds. Dierk., vol. 4, p. 131, 1873 (1874)
(reference). — Day, Fishes of India,
pt. 3, p. 437, pl. 97, fig. 1877 (Madras;
China). — Meyer, Anal. Soc. Fish.

— Günther, Rep. Voy. Challenger, vol. 1,
pt. 6, p. , 1880 (Philippines).

Sillcock, Journ. Asiatic Soc. Bengal,
vol. 58, pt. 1, no. 3, p. 289, 1889 (off
Puri); — Jenkins, Mem. Indian Mus.,
vol. 3, p. 30, 1910 (
— Jordan and Seale, Bull. Bur. Fisher., vol. 26, p. 46, 1906 (1907) (Manila).

2611

Cynoglossus puncticeps (Richardson)

Plagusia puncticeps Richardson,
Fishes China Jap., p. 280, 1846 (type
locality: China). — Kaup, Archiv
Naturges., vol. 24, pt. 1, p. 110, 1858 (name).

Cynoglossus puncticeps Günther, Cat.
Fishes Brit. Mus., vol. 4, p. 500, 1862
(China). — Kner, Reise Novara, Fische,
p. 297, 1865 (Java). — Bleeker, Atlas
Ichth. Ind. Néerl., vol. 6, p. 37, pl. (15)
246, fig. 7, 1866-72 (Java, Banka,
Singapore, Borneo, Amboina); Nederl.
Tijds. Dierk., vol. 4, p. 131, 1873 (1874)
(reference). — Day, Fishes of India,
pt. 3, p. 437, pl. 97, fig. 1877 (Madras;
China). — Meyer, Anal. Soc. Espan.
Hist. Nat. Madrid, vol. 14, p. 40, 1885
(Manila Bay). — Day, Fauna British
India, Fishes, vol. 2, p. 459, 1889. —
Alcock, Journ. Asiatic Soc. Bengal,
vol. 58, pt. 1, no. 3, p. 289, 1889 (off
Puri); — Jenkins, Mem. Indian Mus.,
vol. 3, p. 30, 1910 (
— Jordan and Seale, Bull. Bur. Fisher., vol. 26, p. 46, 1906 (1907) (Manila).

not
at

at base and on tip of caudal peduncle;
fin medially purplish, without bars;

2612

— Reeves, Journ. Pan. Pac. Res. Inst.,
vol. 2, no. 3, p. 14, July-Sep. 1927 (name).
— Horman, Records Indian Mus., vol.
30, pt. 2, p. 205, fig. 21, July 1928
(Bombay, Mormugao Bay, Trivandrum,
Travancore, Madras, Ennur, Calicut,
Ernakulam, Ganjam, Orissa, Burma,
Karachi, Sind, Hindamans). — Weber
and Beaufort, Fishes Indo Austral.
Archip., vol. 5, p. 198, 1929 (Java Sea,
Java, Madura Strait, Celebes, Flores,
Sumbawa, Aru). — Chu, Biol. Bull.
St. John's Univ., Shanghai, no. 1, p. 94,
Jan. 1931 (reference).

? Plagusia auro-limbata Richardson,
Ichth. China Jap., p. 280, 1846 (type
locality: coasts of China; Canton). —
Kaup, Archiv naturges., vol. 24, pt. 1,
p. 110, 1858 (reference).

Cynoglossus aurolimbatus Bleeker,
Nederl. Tijds. Dierk., vol. 4, p. 130,
1873 (1874) (reference).

2613

Plagusia nigro-labeculata Richardson,
Schth. China Jap., p. 280, 1846 (type
locality: coasts of China; Canton).

Plagusia nigrolabeculata Kaup,
Archiv naturges., vol. 24, pt. 1, p. 110,
1858 (name).

Cynoglossus nigrolabeculatus Bleeker,
Waturk. Tijds. Dierk., vol. 4, p. 131,
1873 (1874) (reference).

Plagusia javanica Kuhl and Van Hasselt,
in Bleeker, Waturk. Tijds. Ned. Indië,
vol. 1, p. 414, 1850 (type locality:
Batavia, Java); Verhand. Batavia.
Genoot., No. 9, vol. 24, p. 24, 1852
(types).

Arelia javanica Kaup, Archiv naturges.,
vol. 24, pt. 1, p. 108, 1858 (reference).

2614

Plagusia brachyrhynchos Bleeker,
Natuurk. Tijds. Ned. Indië, vol. 1, p.
414, 1850 (type locality: Batavia);
Verh. Batavia. Genoot., no. 9, vol. 24,
p. 24, 1852 (types). — Kaup, Archiv
Naturges., vol. 24, pt. 1, p. 110, 1858
(reference).

Arelia brachyrhynchos Bleeker, Act.
Soc. Sci. Ind. Néerl. (Enum. Pisc.),
vol. 6, p. 184, 1859 (reference).

Cynoglossus brachyrhynchus Günther,
Cat. Fishes Brit. Mus., vol. 4, p. 499,
1862 (no locality). — Bleeker, Atlas
Ichth. Ind. Néerl., vol. 6, p. 37, pl. (11)
243, fig. 4, 1866-72 (Java, Singapore,
Celebes, Batjan).

— Day, Fishes of India, pt. 3, p. 435,
pl. 96, fig. 4, 1877 (Moulmein); Fauna
British India, Fishes, vol. 2, p. 457,
1889. — Johnstone, Ceylon Pearl Oyster
Fishes., Suppl. Rep. 15, p. 209, 1904. —
Bean and Weed, Proc. U. S. Nat. Mus.,
vol. 42, p. 610, 1912 (Batavia). — Weber,

2615

Siboga Exped., vol. 57, p. 443, 1913
(Madura Strait; Sumbawa; Macassar).

Cynoglossus bengalensis (not Bleeker)
Günther, Cat. Fishes Brit. Mus.,
vol. 4, p. 499, 1862 (part).

Cynoglossus lida (not Bleeker) Jenkins,
Mem. Indian Mus., vol. 3, p. 30, 1910.

Cynoglossus lida var. punctatus
Jenkins, Mem. Indian Mus., vol. 3,
p. 31, 1910.

2616

Depth $3\frac{1}{5}$ to $3\frac{7}{8}$; head $4\frac{1}{5}$ to $4\frac{4}{5}$, width 4 to $4\frac{1}{2}$. Snout end to lower orbit $2\frac{3}{5}$ to 3 in head; lower orbit $6\frac{1}{2}$ to 8, $1\frac{4}{5}$ to 3 in snout; upper orbit advanced $\frac{1}{4}$ to $\frac{1}{3}$ from lower orbit; mouth cleft reaches opposite hind edge of lower orbit, ^{corner} nearer snout end than gill opening, length 4 to $4\frac{3}{5}$ in head; interorbital width $\frac{1}{2}$ lower orbit, concave. Gill rakers vestigial papillae; gill filaments $1\frac{1}{4}$ times lower orbit.

Scales 80 to 90 in lateral line from above gill opening to caudal base (10 or 11 more forward to dorsal intersection on head); 14 to 19 above to upper lateral line, 20 to 23 below to anal base. Scales stenoid on both sides of body. Caudal base scaly. Dorsal and anal with broad well defined basal scaly sheaths. Scales with 22 to 30 basal radiating striae; 20 to 30 rather long apical denticles, with

2 or 3 transverse series of basal elements; cirruli fine. Left side with 2 lateral lines, indistinct or absent from blind side.

D. 90 to 98, fin height $2\frac{1}{8}$ to $2\frac{1}{4}$ in head; A. 70 to 74, fin height $2\frac{1}{5}$ to $2\frac{3}{4}$; caudal $2\frac{1}{8}$ to $2\frac{1}{5}$; ventral $2\frac{2}{3}$ to $2\frac{3}{4}$.

Brown on left side varying to gray or dull russet, variously mottled darker. In young color often lighter and mottling as large contrasted dark spots. Orbits dark gray. Vertical fins pale brown or grayish, with brown spots. Right side whitish, vertical fins all more or less grayish or darker.

2618

Cynoglossus robustus Günther

Cynoglossus robustus Günther, Ann.
Mag. Nat. Hist., ser. , vol. , p. 243,
1873 (type locality: Shanghai). —

{ Jordan and Snyder, Annot. Zool.
Japon., vol. 3, p. 123, 1901 (reference).

{ — Steindachner, Ann. Hofmus. Wien, vol.
11, p. 219, 1896 (Kobe).

— Jordan and Starks, Proc. U. S. Nat. Mus.,
vol. 31, p. 239, 1906 (Tokyo, Kobe, Onomichi
Bay). — Fowler and Bean, Proc. U. S.
Nat. Mus., vol. 62, art. 2, p. 68, 1922
(Takao). — Reeves, Journ. Pan. Pac. Res.
Inst., vol. 2, no. 3, p. 14, July-Sep. 1927
(Shanghai). — Chu, Biol. Bull. St.
John's Univ. Shanghai, no. 1, p. 95, Jan.
1931 (reference). — Schmidt, Trans.
Pac. Comm. Acad. Sci. U. S. S. R., vol. 2,
p. 129, 1931 (Nagasaki; Fusan); Compt.
Rend. Acad. Sci. U. R. S. S., p. 319, 1931
(reference). — Tanaka, Journ. Fac. Sci.
Univ. Tokyo, sect. 4, Zool., vol. 3, pt. 1, p. 39,
Nov. 4, 1931 (reference).

Cynoglossus inusita Jordan, Tanaka,²⁶¹⁹
Snyder, Journ. College Sci. Tokyo, vol.
33, p. 335, 1913 (on Jordan and Starbuck
1906).

Cynoglossus semifasciatus Day 2620

Cynoglossus semifasciatus Day, Fishes of India, pt. 3, p. 436, pl. 97, fig. 5, 1877 (type locality: sea at Madras); Fauna British India, Fishes, vol. 2, p. 458, 1889. — Alcock, Journ. Asiatic Soc. Bengal, vol. 58, pt. 1, p. 289, 1889 (north east of Puri, Bengal Bay). — Jenkins, Mem. Indian Mus., vol. 3, p. 30, 1910 (). — Horman, Rec. Indian Mus., vol. 30, pt. 2, p. 207, July 1928 (Ganjam, Puri, Orissa, Pratabnagore). figs 23, 24

Cynoglossus sibogae Weber

Cynoglossus sibogae Weber, Siboga
Exped., vol. 57, p. 442, fig. 83, 1913
(type locality: Molo Strait, 69 to 91
meters; Sallebabu, 36 meters).

Depth $3\frac{1}{2}$; head $4\frac{1}{4}$, width $4\frac{1}{4}$.
Snout end to lower orbit $2\frac{3}{4}$
in head; lower orbit 6, $2\frac{1}{5}$
in snout, upper orbit $\frac{1}{2}$ in
advance; maxillary reaches
 $\frac{3}{4}$ in lower orbit; mouth corner
midway in head length; mouth
cleft 5 in head, hook extended
well back over symphysis of
mandible; interorbital not
defined, eyes touching. Gill
rakers a row of minute feeble
papillae; gill filaments $1\frac{1}{5}$ in
lower orbit.

Scales 50 in median lateral
line from above gill opening to
caudal base (6 more forward
on head to intersection above

10

dorsal similar, only much smaller. Anal with second spine much longest, robust. Soft anal small, low. Caudal little emarginate. Paired fins subequal, latter with long strong spines.

One genus. Small fishes evidently allied with the *Haemulidae*, differing chiefly in the long flattened dorsal spines.

Genus Banjor Bleeker Cm 130

Banjor Bleeker, Arch. Néerl. Sci. Nat. Harlem, vol. 11, 1876, p. 277. Type Banjor typus Bleeker, orthotypic.

Cinoplus (not Schönherr 1826) Schlegel, Fauna Japonica, Poiss., pt. 1, 1842, p. 17.

No specific name given. Type Cinoplus banjor Richardson.

Body rather short, back somewhat elevated. Head with nearly straight

preopercle); 9 above to upper lateral line, 14 below to anal base. Lateral lines 2 on left side, none on right side. Scales with 24 or 25 basal radiating striae, ~~base~~ edge notched ^{angularly} for each stria; 20 or 21 apical denticles, medial longest and transversely 2 or 3 rows of small ones basally; circuli fine. Right scales also ctenoid.

D. 104, fin height 2 in head; A. 79, fin height 2; caudal $2\frac{1}{2}$, pointed behind; ventral $2\frac{1}{8}$.

Left side ~~clay color, becoming~~ buff to cream buff, mottled with clay color tints more or less as numerous longitudinal irregular, incomplete and waved streaks. Orbits gray. Vertical

Family Banjosiidae Carr 21.

9

Body deep, strongly compressed. Head moderate, compressed, pointed. Eye large, rather high, little advanced. Mouth moderate. Maxillary largely or completely sheathed by deep preorbital. Teeth in bands in jaws, outer short and thick, none villiform. Vomer with villiform teeth, palatines toothless. Nostrils small, near eye, close together. Gill membranes separate and free from isthmus. Gills 4, large slit behind fourth. Pseudobranchiae large. Branchiostegals 7. [Preopercle edge forms right angle. Opercle spineless, with only one soft point. Scales small, finely ctenoid. Lateral line complete, moderately arched. Spinous dorsal high, membranes deeply notched at margin, spines long, flattened, graduated low posteriorly. Soft

fins whitish, with small blackish
brown spots or dots on rays,
contrasted and producing
specked appearance. Right
side whitish, ^{dark} spots on vertical
fins showing through paler or
obscured.

East Indies.

D. 5152 (T7m-)

8
Pterotolithus, new subgenus. - - - - -

- - - - - Otolithes.

In Sillaginidae:

Sillaginopodys, new subgenus - - - - -

- - - - - Sillago.

Cynoglossus sumatranus (Bleeker) ²⁶²⁵

Plagusia sumatrana Bleeker, Nat.

Tijds. ned. Indië, vol. 5, p. 529, 1853

(type locality: Benculen, Sumatra).

— Kaup, Archiv naturges., vol. 24, pt. 1, p. 110, 1858 (name).

Arelia sumatrana Bleeker, Act. Soc. Sci. Ind. Néerl. (Enum. Pisc.), vol. 6, p. 185, 1859 (reference).

Cynoglossus sumatrensis Günther, Cat. Fishes Brit. Mus., vol. 4, p. 497, 1862 (no locality). — Bleeker, Atlas Ichth. Ind. Néerl., vol. 6, p. 35, pl. (12) 243, fig. 1, 1866-72 (Sumatra). — Jordan and Richardson, Bull. Bur. Fisher., vol. 27, p. 281, 1907 (1908) (Ticao).

Cynoglossus sumatranus Norman, Rec. Indian Mus., vol. 30, pt. 2, p. 209, fig. 25, July 1928 (Burma; Mergui).

— Weber and Beaufort, Fishes Indo Austral. Archip., vol. 5, p. 202, 1929 (compiled), p. 430 (reference).

2626

Cynoglossus bengalensis (not Bleeker)
Day, Fishes of India, pt. 3, p. 436,
1877 (part).

2627

Depth $3\frac{4}{5}$ to 4; head $4\frac{1}{4}$ to $4\frac{1}{3}$, width 5 to $5\frac{1}{5}$. Snout to lower orbit $2\frac{1}{5}$ to $2\frac{1}{3}$ in head; lower orbit 9 to $9\frac{1}{3}$, $3\frac{1}{2}$ to 4 in snout; upper orbit $\frac{1}{4}$ to $\frac{1}{3}$ in advance of lower; mouth cleft curved, hooks of upper jaw encroaching well back over mandible, cleft reaches opposite or slightly behind lower orbital edge, length $4\frac{3}{4}$ to 5 in head; interorbital $\frac{1}{2}$ of lower orbit, concave, scaly. Gill rakers absent; gill filaments $1\frac{1}{2}$ times lower orbit.

Scales 70 to 75 in lateral line from above gill opening to caudal base (8 or 9 more forward on head to dorsal intersection), 12 or 13 above to upper lateral line, 13 or 14 below to anal base. Scales moderately small - about edges of body and on basal sheaths of dorsal and anal. Caudal base finely scaled. Scales with 28 to 30 basal radiating striae;

apical denticles; 38 to 40 slender apical denticles, with 3 to 7 transverse series of basal elements; circuli fine. Scales ctenoid on both sides of body. Left side with 2 lateral lines, none on right side.

D. 103 to 109, fin height $3\frac{1}{2}$ to 4 in head; A. 72 to 80, fin height $3\frac{1}{5}$ to $3\frac{1}{4}$; caudal $2\frac{1}{4}$ to $2\frac{3}{4}$; ventral $3\frac{7}{8}$ to 4.

Left side brown, each scale with more or less obscure pale spot basally though scarcely forming contrasted color pattern. Orbits dark neutral gray. Fins all gray brown, rays little darker or more brownish. Right side whitish, fins grayish.

Burma, Malaya, East Indies, Philippines.

Cynoglossus gracilis Günther

2629

Cynoglossus gracilis (Günther, Ann. Mag. Nat. Hist., ser. 4, vol. 17, p. 244, 1873 (type locality: Shanghai); ser. 7, vol. 1, p. 1898 (Newchwang, North China).

— Mori, Hand List Manchur. Vertebr., p. 184, July 1927 (reference).

Areliscus gracilis Reeves, Journ. Pan. Pac. Res. Inst., vol. 2, No. 3, ^{p. 14,} July - Sep. 1927 (Chefoo, Newchwang, Shanghai).

Arelia gracilis Chu, Biol. Bull. St. John's Univ., no. 1, p. 96, Jan. 1931 (reference).

Genus Trulla Kaup

2630

Trulla Kaup, Archiv Naturges., vol. 24, pt. 1, p. 109, 1858. (Type, Trulla cantori Kaup = Plagusia trulla Cantor, virtually tautotypic.)

Mouth inferior. Lips not fringed. Nostril single on left side, before front of lower eye. Ctenoid scales on left side, cycloid on right side. Lateral lines 3 on left side, none on right. Only left ventral present, more or less confluent with anal.

Trylla
~~Cynoglossus abbreviatus~~ (Gray)

2631

Plagusia abbreviata Gray, Illustrat.
Ind. Zool. Hardwickei, vol. 2, pl. 94,
fig. 3, 1830-32 (type locality: China).

Arelia abbreviata Kaup, Archiv Naturg.,
vol. 24, pt. 1, p. 108, 1858 (reference).

Cynoglossus abbreviatus Günther, Cat.
Fishes Brit. Mus., vol. 4, p. 494, 1862
(types; Amoy); Ann. Mag. Nat., ser.,
vol. , p. , 1873 (Shanghai). —

Bleeker, Nederl. Tijds. Dierk., vol.
4, p. 131, 1873 (1874) (reference). —

Peters, Monatsb. Akad. Wiss. Berlin,
1880, p. (Kingpo). — Seale,

Philippine Journ. Sci., vol. 11, p. 78,
1914 (Hong Kong). — Evermann and

Shaw, Proc. Cal. Acad. Sci., vol. 16, ~~pt~~
no. 4, p. 113 Jan. 31, 1927 (Hankow, Hanking, Kingpo).

~~W. C. Cress~~

~~W. C. Cress~~, Contrib. Biol. Lab. Sci. Soc. China,

~~vol. 5, no. 4, 1929 (Amoy)~~ — Fowler,
vol. 5, no. 4,

2632

Proc. Acad. Nat. Sci. Philadelphia, 1929,
p. 615 (Hong Kong). — Chu, Biol. Bull.
St. John's Univ. Shanghai, no. 1, p. 96,
Jan. 1931 (reference).

Areliscus abbreviatus Jordan and Metz,
Mem. Carnegie Mus., Vol. 6, no. 1, p.
62, June 1913 (Fusan, Korea). —
Schmidt, Trans. Pac. Comm. Acad.
Sci. U. S. S. R., vol. 2, p. 129, 1931
(Fusan); Compt. Rend. Acad. Sci.
U. S. S. R., p. 319, 1931 (Fusan).
Wu, Contrib. Biol. Lab. Sci. Soc. China, vol. 5, no. 4, p. 71,
fig. 57, 1929 (Amoy). —

Cynoglossus purpureomaculatus Regan,
Ann. Mag. Nat. Hist., ser. , vol. ,
p. 28, 1905 (type locality: Inland Sea
of Japan).

Areliscus purpureomaculatus Jordan
and Starb, Proc. U. S. Nat. Mus., vol. 31,
p. 242, 1906 (compiled). — Jordan, Tanaka,
Snyder, Journ. College Sci. Tokyo, vol.
33, p. 336, 1913 (reference). — Izuka
and Matsuura, Cat. Zool. Spec. Mus.
Tokyo, Vertebr., p. 114, 1920 (Ariakenomi).

Areliscus hollandi Jordan and Metz,
Mem. Carnegie Mus., vol. 6, no. 2, p.
62, pl. 9, fig. 3, 1913 (type locality:
Fusan, Korea).

Trulla capensis Kaup

2634

Trulla capensis Kaup, Archiv
Naturges., vol. 24, pt. 1, p. 109, 1858
(type locality: no locality [= Cape
of Good Hope]). — Boulenger, Marine
Investig. South Africa, vol. 1, p. 4, 1898.
— Barnard, Ann. South African Mus.,
vol. 21, pt. 1, p. 416, June 1925 (South Africa, 10 to 60 fathoms).
Cynoglossus capensis Günther, Cat.
Fishes Brit. Mus., vol. 4, p. 503,
1862 (copied).

Truffa
~~Cynoglossus~~ carpenteri (Alcock)

2635

Cynoglossus carpenteri Alcock, Journ.
Asiatic Soc. Bengal, vol. 58, pt. 1, no. 3,
p. 287, pl. 18, fig. 1, 1889 (type locality:
68 miles east of the mouth of the
Devi River in Mahānaddi delta, 68
fathoms); Ann. Mag. Nat. Hist., ser.
6, vol. 6, p. 217, 1890.

Journ. Asiatic Soc. Bengal, vol. 65, pt.
2, p. 330, 1896; Illustrat.
Zool. Investigator, pt. 4, pl. 22, fig. 5,
1896; Cat. Deep Sea Fishes Ind. Mus.,
p. 133, 1899 (Bengal Bay; Arabian Sea;
68 to 107 fathoms). — Boulenger,
— Goode and Bean, Oceanic Ichth., p.
462, 1895 (compiled). — Alcock,

Ann. Mag. Nat. Hist., ser. 7, vol. 7, p. 263,
1901. — Regan, Journ.
Bombay Nat. Hist. Soc., vol. 16, p. 329,
1905 (Sea of Oman, 170 to 243 fathoms). — Norman, Rec.
Indian Mus., vol. 30, pt. 2, p. 196, fig.
11, July 1928 (Gulf of Oman; Arabian Sea;
Calicut; Bengal Bay; Persian Gulf; 98
to 230 fathoms).

^{Trupla}
~~Cynoglossus~~ feldmanni (Bleeker) 2536

Plagusia feldmanni Bleeker, Naturk.
Tijds. Nederl. Indië, vol. 5, p. 455,
1853 (type locality: Pengarou, Borneo).
— Kaup, Archiv Naturges., vol. 24, pt.
1, p. 110, 1858 (name).

Arelia feldmanni Bleeker, Act. Soc.
Sci. Ind. Néerl. (Enum. Pisc.), vol. 6,
p. 184, 1859 (reference).

Cynoglossus feldmanni Günther, Cat.
Fishes Brit. Mus., vol. 4, p. 495, 1862
(no locality). — Bleeker, Atlas Ichth.
Ind. Néerl., vol. 6, p. 31, pl. (12) 243,
fig. 5, 1866-72 (Borneo). — Weber
and Beaufort, Fishes Indo Austral.
Archip., vol. 5, p. 192, 1929 (Sumatra).

Depth $4\frac{1}{8}$ to $4\frac{1}{5}$; head $4\frac{1}{3}$ to $4\frac{3}{4}$, width $4\frac{1}{2}$ to 5. Snout end to lower orbit $2\frac{1}{5}$ to $2\frac{1}{4}$ in head; lower orbit $8\frac{3}{4}$ to 10, $4\frac{1}{4}$ to $4\frac{1}{3}$ in snout, upper orbit $\frac{1}{3}$ to $\frac{1}{2}$ in advance; maxillary extends $\frac{1}{3}$ to $\frac{2}{5}$ behind lower orbit; mouth corner 1 to $1\frac{1}{2}$ eye diameters nearer gill opening than snout end; mouth cleft $4\frac{1}{2}$ in head, hook extended well back over symphysis of mandible; interorbital not defined, as very narrow frown, eyes nearly touching. Gill rakers as row of feeble minute papillae; gill filaments $1\frac{1}{2}$ times lower orbit.

In Sparidae the following
are described as new:

Psilopentapodus, new subgenus ----

----- Pentapodus.

Lulosparus, new subgenus -----

----- Sparus.

Rhabdosargus, new subgenus -----

----- Diplodus.

Simocantharus, new subgenus -----

----- Spondylionoma.

In Kyphosidae:

Kyphosus bleekeri, new specific name
for Pimelepterus lembus, not Cuvier.

and Pimelepterus waigiensis, not
Quoy and Gaimard, but both of Bleeker.

In Mullidae:

Pseudupeneus orientalis, new species.

In Sciaenidae:

Pama, new genus.

Otolithoides, new generic name.

Scales 100 to 110 in median lateral line from ^{above} gill opening to caudal base (10 or 12 more forward on head to intersection above preopercle); 19 to 22 above to upper lateral line, 19 to 22 below to lower lateral line. Lateral lines 3 on left side, 3 less distinct on right side or absent in young. Scales with 14 to 22 basal radiating striae, edge scalloped; 14 to 20 slender rather long apical denticles, medially longest, ~~in~~ 3 to 5 transverse series of basal elements; circuli fine. Scales ctenoid on both sides of body.

D. 100 to 117, fin height $2\frac{2}{3}$ to $2\frac{2}{3}$ in head; A. 85 to 98, fin height $2\frac{1}{8}$ to $2\frac{3}{5}$; caudal $2\frac{1}{4}$.

✓ 30. *Epeneus sulphureus* Cuvier
Young.

✓ 31. *Epeneus vittatus* (Forsk.)
Young.

✓ 32. *Epeneus tragula* Richardson
Young.

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$2\frac{1}{3}$, ends in point behind,
ventral $3\frac{7}{8}$ to 4.

Left side ochraceous to cinnamon or tawny olive, exposed scale edges often slightly darker. Orbits gray. Fins paler than body color, especially so over basal scaly areas where light in contrast; medially each ray dark brown; margins of fins more or less pale. Right side whitish, fins with slightly darkened^{ed} median area all around.

48

✓ 20. *Pseudupeneus barberinoides* (Bleeker)
Young.

✓ 21. *Pseudupeneus barberinus* (Lacépède)
Young.

✓ 22. *Pseudupeneus indicus* (Shaw)
Young.

✓ 23. *Pseudupeneus orientalis* new species.
Type.

24. *Pseudupeneus trifasciatus* (Lacépède)
Young.

25. *Pseudupeneus fraterculus* (Valenciennes)

✓ 26. *Pseudupeneus porphyreus* Jenkins
Young.

✓ 27. *Upeneus bensasi* Ahlberg
Young.

✓ 28. *Upeneus lugonius* Jordan and Seale
Young.

✓ 29. *Upeneus moluccensis* Bleeker
Young.

^{Truplla}
Cynoglossus heterolepis (Weber) ²⁶⁴⁰

Cynoglossus heterolepis Weber, Notes Leyden Mus., vol. 32, p. 237, 1910 (type locality: Lorentz River, New Guinea); Nova Guinea, vol. 10, pt. 4, p. 590, 1913 (type).
— Fowler, Mem. Bishop Mus., vol. 10, p. 95, 1928 (compiled). — Weber and Beaufort, Fishes Indo Austral. Archip., vol. 5, p. 191, fig. 52, fig. 53 (scales), 1929 (type).

2641

Trylla
Cynoglossus interruptus (Günther)

Cynoglossus interruptus Günther, Rep.

Voy. Challenger, vol. 1, pt. 6, p. 70, pl. 30,
fig. 13, (type locality: market at
Yokohama¹⁸⁸⁰).

— Steindachner, Ann. H.-of Mus. Wien, vol.
11, p. 220, 1896 (Kobe, Hiogo, Nagasaki).

— Itake, Journ. Bur. Fisher. Tokyo,
p. 8, 1897. — Jordan and Snyder, Proc.
U. S. Nat. Mus., vol. 23, p. 380, 1900
(Tokyo); Annot. Zool. Japon., vol. 3,
p. 123, 1901 (reference).

Areliscus interruptus Jordan and Starke,
Proc. U. S. Nat. Mus., vol. 31, p. 240, 1906
(Tokyo, Nagasaki, Wakanoura, Matsushima,
Onomichi, Hiroshima). — Jordan and

Snyder, Proc. U. S. Nat. Mus., vol. 42, p.
441, 1912 (Shimizu; Suruga). — Jordan,
Tanaka, Snyder, Journ. College Sci. Tokyo,
vol. 33, p. 336, 1913 (reference). —

Izuka and Matsura, Cat. Zool. Spec.
Mus. Tokyo, Vertebr., p. 114, 1920
(Tateyama, Boshu). — Reeves, Journ.

Pan. Pac. Res. Inst., vol. 2, no. 3, p. 14,
July Sep. 1927 (name). — Schmidt and
Lindberg, Bull. Acad. Sci. U. R. S. S.,
p. 1149, 1930 (Tsuruga). — Chu, Biol.
Bull. St. John's Univ. Shanghai, no. 1,
p. 95, Jan. 1931 (reference). — Schmidt,
Trans. Pac. Comm. Acad. Sci. U. S. S. R.,
vol. 2, p. 130, 1931 (Nagasaki); Comptes
Rend. Acad. Sci. U. R. S. S., p. 319,
1931 (reference).

2643

Trulla itina Snyder

Trulla itina Snyder, Proc. U.S.
Nat. Mus., vol. 36, p. 609, 1909 (type
locality: Naha, Okinawa, Rui Kiri);
vol. 42, p. 517, pl. 69, fig. 1, 1912 (type),
p. 441 (Kagoshima). — Jordan,
Tanaka, Snyder, Journ. College
Sci. Tokyo, vol. 33, p. 337, 1913
(reference).

Trufla
Cynoglossus joyneri (Günther)

2644

Cynoglossus joyneri Günther, Ann. Mag. Nat. Hist., ser. 5, vol. 1, p. 486, 1878 (type locality: Tokai, Japan); Rep. Voy. Challenger, vol. 1, pt. 6, p. 70, pl. 30, fig. A, 1880 (type). — Otake, Journ. Bur. Fisher. Tokyo, p. 9, pl. 8, fig. 12, 1896.

Areliscus joyneri Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 380, 1900 (Tokyo); Annot. Zool. Japon., vol. 3, p. 123, 1901 (reference). — Jordan and Starks, Proc. U. S. Nat. Mus., vol. 31, p. 241, 1906 (Tokyo). — Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 441, 1912 (Kagoshima). — Jordan, Tanaka, Snyder, Journ. College Sci. Tokyo, vol. 33, p. 336, 1913 (reference). — Izuka and Matsuura, Cat. Zool. Spec. Mus. Tokyo, Vertebr., p. 114, 1920 (Wadanoha, Rikuben). — Tanaka, Journ. Fac. Sci. Univ. Tokyo, sect. 4, Zool., vol. 3, pt. 1, p. 39, nov. 14, 1931 (reference).

Cynoglossus brunneus Regan, Ann.
Mag. Nat. Hist., ser. , vol. , p. 26,
1925 (type locality: Inland Sea of
Japan). — Jordan and Starbuck, Proc.

U. S. Nat. Mus., vol. 31, p. 239, 1906
(compiled). — Jordan, Tanaka, Snyder,
Journ. College Sci. Tokyo, vol. 33, p. 336,
1913 (copied). — Schmidt, Trans. Pac.
Comm. Acad. Sci. U. S. S. R., vol. 2, p.
129, 1931 (Nagasaki).

~~Trylla~~
~~Cynoglossus~~ kopsii (Bleeker) 2646

Plagusia kopsii Bleeker, Naturk. Tijds.
Ned. Ind. Ind. Ind. Ind., vol. 2, p. 494, 1854 (type
locality: Riou, Bintang); Verh.
Batavia. Genoot., no. 9, vol. 24, p. 31,
1852 (Rio; Amboina).

Plagusia kopsi Kaup, Archiv Naturges.,
vol. 24, pt. 1, p. 110, 1858 (reference).

Arelia kopsi Bleeker, Act. Soc. Sci.
Ind. Néerl. (Enum. Pisc.), vol. 6, p. 184,
1859 (reference).

Cynoglossus kopsii Günther, Cat. Fishes
Brit. Mus., vol. 4, p. 493, 1862 (no locality);
Rep. Voy. Challenger, vol. 1, pt. 6, p. 40, 1880 (Arafura Sea).
— Regan, Trans. Linn. Soc. London, Zool.,
vol. 12, pt. 3, p. 235, May 1908 (Malaku,
Maldives; Cargados Carajoz). — Fowler, Mem. Bishop
Mus., vol. 10, p. 95, 1928 (compiled).
Cynoglossus kopsi Bleeker, Atlas Ichth.
Ind. Néerl., vol. 6, p. 31, pl. (10) 241, fig. 3,
1866-72 (Sumatra, Singapore, Bintang, Amboina).
— Weber and Beaufort, Fishes Indo Austral.
Archip., vol. 5, p. 189, 1929 (Java Sea).

~~Trylla~~
~~Cynoglossus~~ microlepis (Bleeker) ²⁶⁴⁷

Plagusia microlepis Bleeker, Naturk.
Tijds. Ned. Indië, vol. 1, p. 413, 1850
(type locality: Bandjermassing, south
east Borneo); Verh. Batavia. Genoot.,
no. 9, vol. 24, p. 31, 1852 (type). —
Kaup, Archiv naturges., vol. 24, pt. 1,
p. 110, 1858 (name).

Arelia microlepis Bleeker, Act. Soc.
Sci. Ind. Néerl. (Enum. Pisc.), vol. 6,
p. 184, 1859 (reference).

Cynoglossus microlepis Günther, Cat.
Fishes Brit. Mus., vol. 4, p. 495, 1862
(compiled). — Bleeker, Atlas Ichth.
Ind. Néerl., vol. 6, p. 32, pl. (12) 243,
fig. 3, 1866-72 (Borneo). — Vaillant,
Bour. Arch. Mus. Hist. Nat. Paris,
ser. 4, vol. 5, p. 101, 1893 (

— Weber and Beaufort, Fishes Indo
Austral. Archip., vol. 5, p. 190, 1929
(Sumatra).

Truplla
~~*Cynoglossus*~~ *quinque-lineatus* (Day) ²⁶⁴⁸

Cynoglossus quinque-lineatus Day, Fishes
of India, pt. 3, p. 432, pl. 98, fig. 1,
1877 (type locality: Madras); Fauna
British India, Fishes, vol. 2, p.
453, 1889. — Horman, Records Indian
Mus., vol. 30, pt. 2, p. 197, fig. 12,
July 1928 (type?).

Trupla
Cynoglossus rhomaleus Jordan and Starks ²⁶⁴⁹

Arelia rhomaleus Jordan and Starks,
Proc. U. S. Nat. Mus., vol. 31, p. 526, fig.
5, 1906 (type locality: Port Arthur,
Manchuria). — Chu, Biol. Bull. St.
John's Univ. Shanghai, no. 1, p. 95, Jan.
1931 (reference).

Areliscus rhomaleus Jordan and Metz,
Mem. Carnegie Mus., vol. 6, no. 1, June 1913,
(reference). p. 63, fig. 63,
— Reeves, Journ. Pan Pac. Res. Inst.,
vol. 2, no. 3, p. 14, July-Sep. 1927 (Port
Arthur; Swatow). — Sowerby, Natural.
Manchuria, vol. 4, p. 183, 1930 (Pei
tai Ho, Shan-hai Kuan, Port Arthur,
Dalny, Antung, Tientsin). — Schmidt,
Compt. Rend. Acad. Sci. U. R. S. S.,
p. 319, 1931 (Fusan, Korea).

³ rylla
~~Cynoglossus~~ sealarcki (Regan)

2650

Cynoglossus sealarcki Regan, Trans. Linn.
Soc. London, vol. 12, Zool., pt. 3, p. 235,
pl. 26, fig. 1, May 1908 (type locality:
Saya de Malhat Bank, over 123
fathoms). — Horman, Records Indian
Mus., vol. 30, pt. 2, p. 195, July 1928
(types).

²⁶⁵¹
~~Cynoglossus~~ Trupla semilaevis (Günther)

Cynoglossus semilaevis Günther, Ann.
Mag. Nat. Hist., ser. 4, vol. 12, p. 379,
1873 (type locality: Chefoo, China),
ser. 7, vol. , p. , 1898 (Newchwang,
North China).

Arelia semilaevis Jordan and Starks,
Proc. U. S. Nat. Mus., vol. 31, p. 242,
1906 (compiled). — Mori, Hand List
Manchur. Vertebr., p. 183, July 1927
(reference). — Chu, Biol. Bull. St.
John's Univ. Shanghai, no. 1, p. 95,
Jan. 1931 (reference).

Trufla

2652

~~Cynoglossus~~ trigrammus Günther

Cynoglossus trigrammus Günther,
Cat. Fishes Brit. Mus., vol. 4, p. 494,
1862 (type locality: China). — Bleeker,
Nederl. Tijds. Dierk., vol. 4, p. 131,
1873 (1874) (Amoy). — Martens, Preuss.
Exped. Ost Asien, vol. , p. , 1875
(Shanghai). — Sauvage, Bull. Soc.
Sci. Philomath. Paris, ser. 7, vol. 5,
p. 107, 1881 (Swatow). — Rutter, Proc.
Acad. Nat. Sci. Philadelphia, 1897,
p. 89 (reference).

Orelicus trigrammus Chu, Biol. Bull.
St. John's Univ. Shanghai, vol. 2, no. 3,
p. 14, July - Sep. 1927 (reference).

2653

Trulla trulla (Cantor)

Plagusia trulla Cantor, Journ. Asiatic Soc. Bengal, vol. 18, pt. 2, p. 1213, 1849 (1850) (type locality: Sea of Pinang; Malayan Peninsula).

Cynoglossus trulla Günther, Cat. Fishes Brit. Mus., vol. 4, p. 503, 1862 (type).

Trulla cantori Kaup, Archiv naturges., vol. 24, pt. 1, p. 109, 1858 (type locality: Sea of Pinang; reference virtually on Cantor).

~~T. rufella~~
Cynoglossus versicolor (Alcock) ²⁶⁵⁴

Cynoglossus versicolor Alcock, Ann. Mag.
Nat. Hist., ser. 6, vol. 6, p. 442, 1890
(type locality: off Orissa coast, 11 fathoms);

Journ. Asiatic Soc. Bengal, vol. 65,
pt. 2, p. 330, 1896.

— Horman, Rec. Indian Mus., vol. 30,
pt. 2, p. 195, fig. 10, July 1928 (type).

²⁶⁵⁵
~~Trupla~~
Cynoglossus waandersii (Bleeker)

Plagusia waandersii Bleeker, Natuurk.
Tijds. Ned. Indië, vol. 7, p. 98, 1854
(type locality: Palembang, east Sumatra).

Plagusia wandersi Kaup, Archiv
Naturges., vol. 24, pt. 1, p. 110, 1858 (name).

Arelia waandersii Bleeker, Act. Soc.
Sci. Ind. Néerl. (Enum. Pisc.), vol. 6,
p. 185, 1859 (reference).

Cynoglossus waandersii Günther, Cat.
Fishes Brit. Mus., vol. 4, p. 493, 1862
(compiled). — Bleeker, Atlas Ichth.
Ind. Néerl., vol. 6, p. 31, pl. (10) 241,
fig. 2, 1866-72 (Sumatra).

Cynoglossus waandersii Weber and Beaufort,
Fishes Indo Austral. Archip., vol. 5, p.
189, 1929 (Sumatra; Borneo).

~~Triplla~~
~~Cynoglossus~~ xiphoideus (Günther) ²⁶⁵⁶

Cynoglossus xiphoideus Günther, Cat.
Fishes Brit. Mus., vol. 4, p. 495, 1862
(type locality: Siam). — Kner, Reise
Novara, Fische, p. 294, 1865 (East Indies).
— Edwards, Bull. Bour. Arch. Mus.
Hist. Nat. Paris, vol. 2, p. 13, 1866

— Weber, Siboga Exped., vol. 57, p. 441,
1913 (Timor Sea, 216 meters). —
Hora, Journ. Nat. Hist. Soc. Siam,
vol. 6, ^{no. 2,} p. 182, 1923 (Kontaburi).
— Weber and Beaufort, Fishes Indo
 Austral. Archip., vol. 5, p. 193, 1929
(Weber's material).

2657

Genus Symphurus Rafinesque

Symphurus Rafinesque, Ind. Itt.
Napol., pp. 13, 52, May 1810. (Type,
Symphurus nigrescens Rafinesque,
monotypic.)

Plagusia (not Latreille 1806) Cuvier,
Règne Animal, ed. 2, vol. 2, p. 344,
1829. (Type, Pleuronectes plagusia
Schneider.)

Plagusia Browne, Nat. Hist. Jamaica,
ed. 2, p. 46, 1789. (Species non-binomial;
type, Pleuronectes plagusia Schneider,
designated by Jordan and Evermann,
Genera of Fishes, pt. 1, p. 46, 1917.)

Bibronia Cocco, (Intorno P. Messina)
Lettera Prof. A. Cocco al Signor A.
Krohn, p. 15, 1844. (Type, Bibronia
ligulata Cocco.)

Aphorista Kaup, Archiv Naturges., vol.
24, pt. 1, p. 106, 1858. (Type, Achirus
ornatus Lacépède, monotypic.)

Glossichthys Gill, Cat. Fish. East ²⁶⁵⁸
Coast & S., p. 51, 1861. (Type,
Pleuronectes plagusia Schneider,
monotypic.)

Ammopleurus Günther, Cat. Fishes
Brit. Mus., vol. 4, p. 490, 1862.
(Type, Plagusia lactea Bonaparte,
monotypic.)

? Bascanius Schiodte, Naturh. Tidsskr.,
ser. 3, vol. 5, pp. 269, 275, 1867.
(Type, Bascanius taedifer Schiodte,
monotypic.)

Acedia Jordan, in Jordan and Goss,
Rep. U. S. Fish Comm., pt. 14, p.
321, 1886 (1889). (Type, Aphorstia
nebulosa Goode and Bean, monotypic.)

2659

Symphurus acuminatus (Castelnau)

Plagusia acuminata Castelnau, (Res.
Fish. Austral.) Viet. Off. Rep.
Philadelphia Expos., p. 44, 1876 (type
locality: Western Australia).

2660

Symphurus australis Mc Culloch

Symphurus strictus var. australis
Mc Culloch, Rec. Austral. Mus.,
vol. 6, p. 349, fig. 55, 1907 (type
locality: 35 miles east of Sydney,
800 fathoms). Austral. Mus. Mem.,
no. 5, pt. 2, p. 287, Sep. 10, 1929
(reference).

Symphurus australis Mc Culloch,
Austral. Zoologist, vol. 2, 1921, p. 47.
— Horman, Biol. Res. Endeavour,
vol. 5, pt. 5, p. 308, June 15, 1926 (type).
— Mc Culloch, ←

2661

Symphurus gilesii (Alcock)

Aphoristia gilesii Alcock, Journ.
Asiatic Soc. Bengal, vol. 58, no. 3,
p. 293, pl. 17, fig. 2, 1889 (type
locality: lat. $20^{\circ}17'N.$, long. $88^{\circ}51'E.$,
Bengal Bay, 193 fathoms); Illustrat.
Zool. Investigator, pt. 3, pl. 14, fig.
4, 1898; Descript. Cat. Deep Sea
Fishes Ind. Mus., p. 131, 1899
(Bengal Bay, 193 to 210 fathoms).
— Goode and Bean, Oceanic Ichth.,
p. 458, 1895 (name).

Aphoristia gilesi Weber, Siboga
Expd., vol. 57, p. 445, 1913 (Kei
Islands, 397 meters). — Weber and
Beaufort, Fishes Indo Austral.
Archip., vol. 5, p. 210, 1929 (Weber's
example)

Symphurus hondoensis Hubbs

2662

Symphurus hondoensis Hubbs, Proc.
U. S. Nat. Mus., vol. 48, p. 494, pl. 27,
fig. 9, 1915 (type locality: Suruga
Gulf, Japan, 211 to 293 fathoms).

12-10-43.

Pages 2663 through 2665 either missing
or misnumbered.

Erwin Wade

2667

Symphurus marmoratus new species.

Depth $3\frac{1}{4}$ to 4; head $4\frac{1}{4}$ to $5\frac{1}{4}$, width $3\frac{3}{4}$ to $4\frac{1}{8}$. Snout end to lower orbit 5 in head; lower orbit 8, $1\frac{1}{2}$ in snout; upper orbit $\frac{1}{8}$ in advance of lower; very narrow scaly interorbital about $\frac{1}{2}$ of lower orbit. Gill rakers not developed or as row of few weak vestigial papillae; gill filaments $1\frac{1}{4}$ times lower orbit.

Scales 113 to 115 in medial axial series from upper angle of gill opening to caudal base; 45 transversely. Caudal base

957

~~8870 and 8817. Maculabos Island.~~

~~June 13, 1909. Length 363 to 375 mm.~~

7043. Port San Pio Quinto, Camiguin

Island. November 11, 1908. Length 330 mm.

General color brown, on fading centers of scales on back and sides becoming more or less brassy. On upper side and back numerous narrow slaty blue lines.

Head similar to body, only slightly darker.

Cheek with numerous small lighter spots,

nearly unbar. Black centered, blue,

rimmed ocellus about $\frac{1}{2}$ of eye above upper angle of gill opening. Opercle

flap blackish. Undefined orange brown

bar from shoulder ocellus downward

behind pectoral axil. Dorsal orange

brown, very narrowly margined indigo

2666

Symphurus microhynchus (Weber)

Aphoristia microhynchus Weber,
Siboga Exped., vol. 57, p. 444, fig. 85,
1913 (type locality: lat. $6^{\circ} 16' 55''$ S., long.
 $114^{\circ} 37' E.$, Java Sea, 82 meters).

Symphurus microhynchus Weber
and Beaufort, Fishes Indo Austral.
Archip., vol. 5, p. 211, 1929 (type).

2667

Symphurus orientalis (Bleeker)

Aphoristia orientalis Bleeker, Verh.
Akad. Wet. Amsterdam (Enum. Poiss.
Jap.), vol. 18, p. 31, pl. 11, fig. 1,
1879 (type locality: Japan).

Symphurus orientalis Jordan and Snyder,
Annot. Zool. Japon., vol. 3, p. 122, 1901
(reference). — Jordan and Starbs,
Proc. U. S. Nat. Mus., vol. 31, p. 243,
1906 (compiled). — Jordan, Tanaka,
Snyder, Journ. College Sci. Tokyo,
vol. 33, p. 335, 1913 (reference). —
Chu, Biol. Bull. St. John's Univ.
Shanghai, no. 1, p. 94, Jan. 1931
(reference).

? Achirus plagusia (not Schneider)
Basilevsky, Bull. Soc. Nat. Moscow,
vol. , p. 245, 1855 (Chili).

Symphurus regani Weber and Beaufort

Symphurus regani Weber and Beaufort,
Fishes Indo Austral. Archip., vol. 5,
 p. 210, fig. 56, 1929 (type locality:
 Flores Sea, 694 to 794 meters).

Aphoristia elongata (not Günther)
Weber, Siboga Exped., vol. 57, p. 444,
 1913 (lat. $7^{\circ}24' S.$, long. $118^{\circ}15'2'' E.$,
 794 meters; lat. $117^{\circ}30'8'' S.$, long. $117^{\circ}30'8'' E.$,
 694 meters).

Depth $3\frac{4}{5}$ to 4; head 4 to 5, width $4\frac{3}{4}$ to 5. Snout end to lower orbit $4\frac{3}{4}$ to $5\frac{1}{5}$ in head; lower orbit $6\frac{1}{4}$ to $6\frac{4}{5}$, $1\frac{1}{3}$ to $1\frac{2}{5}$ in snout; upper orbit $\frac{1}{4}$ to $\frac{1}{3}$ in advance of lower; ~~mouth~~
~~from lower~~ maxillary reaches $\frac{1}{2}$ in lower eye, length from lower front snout tip $4\frac{1}{4}$ to $4\frac{1}{2}$ in head; scaly interorbital very narrow, depressed between orbits. No gill rakers; gill filaments

1 to $1\frac{1}{5}$ in lower orbit.

Scales ⁸⁰~~66~~ to ⁸⁵~~68~~ in axial lateral series from above hind edge of gill opening to caudal base. and 4 or 5 more on latter; 28 to 30 transversely. Scales

or obscurely spotted with deeper brown.
 Red Sea, Zanzibar, Mozambique,
 Portuguese East Africa, Natal, Madagascar,
 India, Ceylon, East Indies, Philippines,
 China, Ru Kiu, Melanesia, Micronesia,
 Polynesia. Easily known among all
 the species of its genus by its very
 long attenuated snout, broad lips
 and conic teeth. Moreover it reaches a
 large size, Klunzinger giving 820 mm.
 as maximum length.

Valenciennes says of Lethrinus
olivaceus the spinous dorsal is
 yellowish, edged orange, with golden
 yellow spots and large olive spots
 at the base of each spine. Soft
 dorsal membrane golden, also same
 of pectoral and caudal. Rays of these
 fins yellow. Anal and ventral
 yellowish.

2670

very caducous.
all stenoid. Scales with 6 to 9
basal radiating striae; 12 to 14
slender apical denticles, with
2 to 4 transverse series of basal
elements; circuli fine.

D. 95 to 102, fin height 2 to
2 $\frac{1}{5}$ in head; A. 80 to 89, fin
height 2; caudal 1 $\frac{4}{5}$ to 2 $\frac{1}{2}$,
obtusely pointed behind; ventral
2 $\frac{1}{4}$ to 2 $\frac{3}{5}$.

Left side clay color to
ochraceous or buff. Dark
pigment of lower or branchial
region of head and front lower
part of trunk dark neutral
gray. Orbits gray. Vertical
fins all gray to brown, often
in contrast to rest of body.
Right side paler to whitish,

caudal base and 1 or 2 more on latter; 6 above, 15 or 16 below, 9 predorsal; caudal and pectoral bases finely scaled. Scales with 12 to 18 basal radiating striae, with 2 to 23 incomplete auxiliaries; 110 to 244 apical denticles, with 5 to 8 transverse series of basal elements; circuli fine.

D. X, 9, I, fourth spine $2\frac{4}{5}$ to $3\frac{1}{4}$ in head, fourth ray 3 to $3\frac{1}{5}$; A. III, 8, I, third spine $3\frac{1}{2}$ to $4\frac{1}{8}$, first ray $3\frac{1}{5}$ to $3\frac{2}{3}$; caudal $1\frac{1}{4}$ to $1\frac{2}{5}$, deeply emarginate; least depth of caudal peduncle $3\frac{3}{5}$ to $3\frac{7}{8}$; pectoral $1\frac{2}{5}$ to $1\frac{3}{5}$; ventral $1\frac{2}{3}$ to $1\frac{3}{4}$.

Brown generally, paler to whitish below. Head deeper or drab brown, pale below. Each scale on body with slightly darker margin. Iris golden brown. Fins brown, vertical ones mottled

vertical fins all with more
or less brownish. Also lower
branchial region and lower front
of trunk dark neutral gray.

Depth $2\frac{2}{3}$ to $3\frac{1}{4}$; head $2\frac{2}{5}$ to $2\frac{3}{4}$, width $2\frac{2}{5}$ to 3. Snout $1\frac{3}{5}$ to $3\frac{3}{4}$ in head; eye $3\frac{2}{5}$ to $7\frac{2}{3}$, $1\frac{1}{2}$ to $4\frac{3}{4}$ in snout, greater than interorbital in young to 1 to 2 with age; maxillary reaches $\frac{1}{2}$ to $\frac{2}{3}$ to eye, not to front nostril, length $2\frac{3}{4}$ to 3 in head; lips broad, fleshy, coriaceous; teeth in broad villiform bands anteriorly in jaws, outer row enlarged and conic with 4 front ones in each jaw slight canines, all laterals strongly conic; interorbital 4 to $5\frac{1}{8}$ in head, broadly and slightly convex in young, nearly level to slightly concave with age; naked region of head with fine striae or skin finely rugose. Gill rakers 4 + 5, short low tubercles, about $\frac{1}{2}$ of gill filaments.

Scales 44 to 48 in lateral line to

2672

Symphurus septemstriatus (Alcock)

Aphoristia septemstriata Alcock,
Ann. Mag. Nat. Hist., ser. 6, vol. 8, p.
125, Aug. 1891 (type locality: lat. 11°
 $31' 40''$ N., long. $92^{\circ} 46' 40''$ E., 188 to 220
fathoms, Andaman Sea); Illustrat.
Zool. Investigator, pt. 1, pl. 2, fig. 1, 1892.
— Goode and Bean, Oceanic Ichth.,
pp. 458, 536, 1895 (name). — Alcock,
Cat. Deep Sea Fishes Ind. Mus., p. 132,
1899 (types; Gulf of Manar, 142 to 400
fathoms).

2673

Symphurus sorogonensis (Evermann
and Seale)

Synaptura sorogonensis Evermann
and Seale, Bull. Bur. Fisher., vol.
26, p. 106, fig. 22, 1906 (1907) (type
locality: Bacon, Sorogon, Philippines).

~~Jordan and Richardson~~

Brachius sorogonensis Jordan and
Richardson, Bull. Bur. Fisher., vol.
27, p. 281, 1907 (1908) (Manila; Lubang).

Symphurus strictus Gilbert

2674

Symphurus strictus (Gilbert, Bull.

Bur. Fisher., vol. 23, pt. 2, p. 691, fig. 272, 1903 (1905) (type locality: off Oahu; off east Kauai; 265 to 399 fathoms).

2675

Symphurus trifasciatus (Alcock)

Aphoristia trifasciatus Alcock, Journ.
Asiatic Soc. Bengal, vol. 63, pt. 2, no.
3, p. 132, pl. 7, fig. 4, 1894 (type
locality:

Illustrat. Zool. Investigator, pt. 3,
pl. 15, fig. 5, 1895; Cat. Deep Sea
Fishes Indian Mus., p. 133, 1899
(Bengal Bay, 145 to 250 fathoms).

Symphurus undatus Gilbert

2676

Symphurus undatus Gilbert, Bull.
Bur. Fisher., vol. 23, pt. 2, p. 690, pl.
98, 1903(1905) (type locality: off
north west Oahu, 154 to 216 fathoms).

Symphurus unicolor (Macleay) 2677

Plagusia unicolor Macleay, Proc.
Linn. Soc. New South Wales, vol. 6,
p. 138, 1881 (type locality: Port Jackson).

Symphurus wood-masoni (Alcock)

Aphoristia wood-masoni Alcock, Journ.
Asiatic Soc. Bengal, vol. 58, pt. 2, no. 3,
p. 294, pl. 17, fig. 1, 1889 (type locality:
7 1/2 miles east of North Cinque Island,
Andamans, 490 fathoms); Illustrat.
Zool. Investigator, pt. 3, pl. 16, fig. 4,
1895; Cat. Deep Sea Fishes Indian
Mus., p. 131, 1899 (type; Bengal Bay,
475 fathoms). — Regan, Trans. Linn.
Soc. London, vol. 12, pt. 3, Zool., p. 235,
May 1908 (Saya de Malha Bank,
over 123 fathoms).